

GREEN'S FRUIT GROWER



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GREEN'S FRUIT GROWER

IS

"A MAGAZINE WITH A MISSION."

It has a real message for the general farmer. It is indispensable to fruit
growing farmer. It is largely devoted to fruit growing—the most profitable
of all farm industries. Its principal departments are: Editorial, Orchard,
Small Fruits, Spraying, Harvesting, Marketing, Poultry, Home, Health,
Wealth and Happiness.

CHARLES A. GREEN, Editor

and Thirty Years a Successful Fruit Grower.

ROCHESTER, N. Y., OCTOBER, 1912

10,000 Cars at \$1,055 To Introduce Reo the Fifth

By R. E. Olds, Designer

To the Thousands Who are Buying

I am not writing this to sell more cars. The present demand taxes our utmost capacity. And the cars in use will sell our future output better than words of mine.

In all my experience of 25 years I have never seen a success like that of Reo the Fifth. I have never seen a car so popular.

What I have to say now is to you who are buying, largely through faith in me.

I want you to know that, despite this rush, there are hundreds of us watching every car. We are giving more than we promised.

And you who took my word—who are buying first—are getting an underprice.

Just the Start

Reo the Fifth is not built for a season. The present demand is just the beginning.

This car, remember, is the final result of 25 years spent in car building. It marks my limit—the very best I can do. And no car of the future can greatly improve on it.

The cars we sell now are sent out to sell others—to create reputation for My Farewell Car. And you may be sure that not a car goes out until we know it is utterly perfect.

Our Costly Care

We analyze the steel that goes into this car. Every part is inspected over and over. Every part with a flaw is rejected.

Every important part is put to radical test before it goes into the car.

The engines are tested for 48 hours. The finished cars are given more severe try-outs than in any other factory I know.

Parts are ground over and over to get utter exactness. Absolute silence in every part is demanded.

Each body is finished in 17 coats. The upholstery is perfect. To every part we give the final touch, regardless of time or cost.

For each of these cars is a salesman. Each will tell to hundreds of people the story of Reo the Fifth. And all our success in the future depends on the tale they tell.

The Underprice

There was never a car so under-priced as Reo the Fifth at \$1,055. Every man knows this who makes any comparison.

This price is ridiculous. It is too low to endure. The coming advance in the cost of materials is bound to send it soaring.

But we are content to sell 10,000 cars without regard to profit. So the present price will doubtless continue during the spring demand.

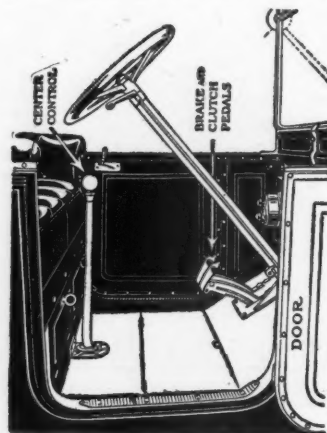
It goes to original buyers—to the men who first come to this car. And they will create our future

market. Their cars will be our future advertisements.

You early buyers are getting an inside price, and I am glad to know it. But men who expect the present price to continue are bound to be disappointed.

The Center Control This Year's Best Innovation

The success of Reo the Fifth is largely due to our new center control. Here, for the first time, we



get rid of all side levers. Both doors in front are clear.

All the gear shifting is done by moving this center lever less than

three inches, in each of four directions. It is done with the right hand.

Both brakes are operated by foot pedals, one of which also operates the clutch.

This arrangement permits of the left side drive, heretofore possible in electric cars only. The driver sits, as he should sit, close to the cars he passes and on the up side of the road.

The old side drive will appear very awkward when you once see this.

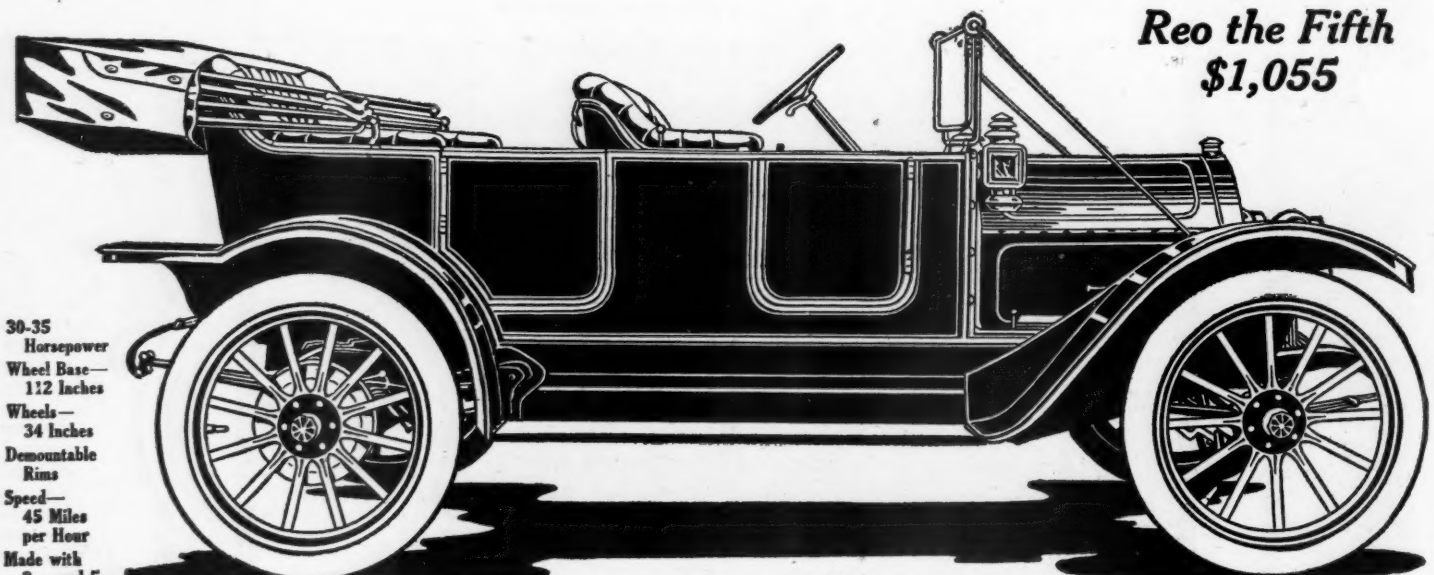
1,000 Dealers

Reo the Fifth is sold by dealers in a thousand towns, so everyone can easily see it.

Our catalog shows the various bodies and gives every detail. Ask us to mail it to you. Address

R. M. Owen & Co. General Sales Agents for Reo Motor Car Co., Lansing, Mich.

Canadian Factory, St. Catharines, Ont.



Reo the Fifth
\$1,055

30-35
Horsepower
Wheel Base—
112 inches
Wheels—
34 inches
Demountable
Rims
Speed—
45 Miles
per Hour
Made with
2 and 5
Passenger
Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank and speedometer—all for \$100 extra. Self-starter, if wanted, \$20 extra.

GREEN'S FRUIT GROWER

A Monthly Magazine for the Fruit Growing Farmer and His Family

CHARLES A. GREEN, Editor

Volume 32

ROCHESTER, N. Y., OCTOBER, 1912

Number 10

CHINA AND THE CHINESE.

By C. A. Green

In China it is the scholar who occupies the highest position that the nation can give. The diplomat or politician is graded as next in the esteem of the Chinese. Next comes the banker, next the merchant, next the farmer, but lowest of all is the soldier, unless it be the beggar who comes last. There are no military heroes in China, no monument erected to a soldier or to commemorate a military event. The Chinese are a peaceable, peace loving people.

The white race, the European, the American, is bloodthirsty as compared with the Chinese. Wherever the white man has come into contact with the aborigine, the native dweller of a district or continent, he has proceeded to annihilate this aborigine. But when the Chinese conquered China from the aboriginal tribes they allowed these wild tribes to take refuge in the mountains where their descendants remain to the present day. They did not slaughter these wild tribes whom they had conquered.

The Chinese have no high regard for the female sex. If parents are asked how many children they have, if they have four girls and four boys their reply is "Four," for they do not count the girls and do not consider them worth counting. This is largely due to the fact that the Chinese parent feels that he must have sons, but there is no particular necessity for his having daughters. This condition is brought about by their religion which teaches the worship of ancestors. Every Chinaman worships his ancestors and feels that he must have sons to erect ancestral tablets to his memory and before them to bow down and worship him, their father, after he is dead and buried. Like sentiments exist with the Japanese, which is shown by the fact that the great naval hero of Japan in the war with Russia, when honored for his valor by the emperor, gave all the credit for his victories to his ancestors.

The Chinaman has not a high regard for life. He meets death stoically. During the boxer outbreak one hundred and fifty Chinamen who had embraced Christianity were ordered to kneel before an idol, thus renouncing Christianity. If they would not thus kneel and renounce they were instructed to place their heads upon a block nearby where an executioner was stationed to cut off their heads. It required no squad of police or soldiers to bring about this execution. The one hundred and fifty Christians passed by the idol without kneeling. Then each in turn placed his head upon the block where it was severed from his body.

As a result of the boxer outbreak in China, China awarded this country \$20,000,000 indemnity for injury done to American missions and other property. Of this sum the United States returned to China \$13,000,000, stating that this sum was in excess of the real damage done. The Chinese nation had a keen appreciation of this act and replied that a search had been made of historical records and no similar instance of money having been returned by a conquering nation had ever been recorded. Because of this magnanimous act on the part of the United States, China loves this nation more than any other in the world and desires to model her new republic after that of the United States. China decided that this \$13,000,000 should be set aside to endow a system by which Chinese students should be educated in American schools and colleges. It would seem, since Chinese scholars who have been educated in American colleges have vast influence in the reorganization of China, that this influence will be largely augmented in future years when other Chinese graduates of American colleges will return to China.

The size of China south of the great wall is about two-thirds that of the United States, but whereas our country has about

90,000,000 population, the above portion of China has 410,000,000 inhabitants.

The great wall of China varies in height and width but on the average it is 80 feet broad at the base, 40 feet broad at the top, and about 60 feet high. It is 1200 miles long. It was built in twelve years, being for that period as great an enterprise or greater than the Panama canal is for us today.

The abandonment of the trade in opium is said to be the principal cause of China's bankruptcy and of the defeat of the Manchurian dynasty.

The Lure of the Land.

An Address Given at a recent Agricultural Dinner at New York City. By Colonel Henry Exall, President Texas Industrial Congress.

The world is just beginning to realize that the most important factor in the life, the hope, and the happiness of all the peoples of the earth is the preservation of the pristine strength and original fertility, as near as such a consummation is possible, of the land that we cultivate. It is by all odds the most vitally important of all the questions that affect human kind, and every man, woman and child ought to be taught, if they do not already realize the fact, that we cannot milk without feeding, subtract without ad-

ding from and returning nothing to it, that despite the fact that we have in the past forty years put under the plow the major portion of what is known as the Prairie Plains, probably the largest body of land of like fertility on the face of the earth, reaching from Ohio down the Mississippi, west of the Dakotas and southwest through Nebraska, Kansas, Oklahoma and Texas to the Rio Grande, and despite the fact, that within the same time, wonderful improvements have been made in agricultural implements of every kind for cultivating and harvesting crops at a minimum cost, and that great advance have been made in seed breeding and selection, it is nevertheless true that our corn and wheat crops taken together average less per acre than they did forty years ago.

Ten years ago, the United States raised about 500,000,000 bushels of wheat, and exported 37 1/2 per cent. of it. We now raise about 700,000,000 bushels of wheat and export about 17 per cent. of it. We then raised two and a quarter billion bushels of corn and exported 9 per cent. of it. We now raise about two and three-quarters billion bushels of corn and export about three per cent. of it—almost a buying proposition. It is a pertinent question to ask, who has it for sale at reasonable prices?

JUST THIRTY YEARS AGO.

Thirty years ago, I assisted in driving 5,000 head of cattle from Texas to the northwestern ranges. The cattle had been grown on free grass in Texas, and

ably have two hundred and fifty to three hundred million well within the present century; population increasing at a terrific rate; production decreasing. The burning question is: How can we, in the shortest possible time, reach the millions of people who are already in possession of the major part of the best agricultural lands in this country, and impress upon them the necessity of saving every ounce of fertilizing matter, and returning it to the soil? The sewage from the cities must be distilled, and the mineral fertilizers returned to the land. Leguminous plants that enrich with humus, and also draw nitrogen from the atmosphere, must be used in rotation, and as cover crops to replace to some extent the terrible annual drain upon the nitrogen, potash, phosphorus and other necessary fertilizing elements by the grain and other crops sold from the land. For nitrogen and potash, there are many sources of supply, but the amount of phosphorus in the mines and in the land is limited. Recent experiments lead us to believe that the pre-historic nations that have flourished for a time and then mysteriously faded away really died from gradual starvation.

The mighty men who builded the pyramids unwittingly sapped the earth of its vital forces, especially of the crucial element—phosphorus, of which there is a very meager supply, for which there is no known substitute, and without which there is no vigorous animal life or virulent mentality. They then became anemic from eating bread that was not life giving bread, because it was deficient in phosphorus and the other necessary mineral ingredients, and they were swept from the face of the earth by the first pestilence that struck them, while they hunted the new land that they failed to find.

Rome robbed Italy, Sicily, Sardinia and Africa of these vital forces, and her wheat crops decreased from 38 to 40 bushels to three or four bushels per acre, and it was of such poor quality that it would not support vigorous animal life. In demonstration of the truth of these conjectures, experiments have recently been made in Europe, as well as in this country. Vigorous young bullocks, reared on food grown on virgin soil containing all essential mineral elements, were confined and fed upon food grown upon land that was deficient in phosphorus, and in about two months, some of them were killed, and it was found that the necessities of the body had taken the major part of the phosphorus from their bones, and that they were gradually starving to death. Efforts were made to resuscitate those that had not been killed by feeding them a well-balanced ration, with the proper content of phosphorus, but the efforts were unavailing and death ensued.

In the last analysis, man consumes the entire product of the soil; and the waste from his body, as well as from other wasteful uses of these food products, finds its way to the bottom of the billowy deep, never, never to be returned. His body, and the bodies of all the myriads of people who have lived and died for unknown ages, have been mummified, petrified, and buried deep down in the bowels of the earth, making this soil depletion complete.

These examples emphasize the necessity of conserving the vital forces of the earth, that it may continue to furnish nutritious and life-giving food to our children's children for all the generations that are to come.

A Boulder woman complained about the quality of milk and received this explanation: "You see, mum, they don't get enough grass feed this time o' year. Why, them cows o' mine are just as sorry about it as I am. I often see 'em cryin'—regular cryin'—mum—because they feel as how their milk don't do 'em credit. Don't you believe it, mum?" "Oh, yes, I believe it," responded Mrs. Boulder, "but I wish in future you'd see that they don't drop their tears into our can."



The Prolific and Delicious Quince.

ding, check out without depositing, and that such a process of cultivating would inevitably sap the vitality of the earth, and finally eternally destroy it. The cultivatable agricultural crust of the earth known as soil, is composed in part of certain mineral fertilizing elements that are positively essential to plant growth. Every crop of grain, grass or other vegetable matter that is grown upon and removed from this land, takes away a positive and definite amount of this meager supply. The larger the crop removed, the sooner will the supply be exhausted. Therefore, the more we take, the more we must return, if we hope to perpetuate the productivity of the soil. We must not forget that practically all animal life depends for its existence upon food that is grown upon the land. It is well to remember that the world, as a whole, carries no surplus food supply; in fact, fully one-half of the people of the universe go to bed hungry every night. We should be told, if we do not know that the phosphorus, nitrogen and potash in the stalks from 100 bushels of corn, or in the stalks from a bale of cotton, are worth in the market at wholesale, if we have them to buy, about \$10 in cash, and as a rule, the cotton and the corn stalks above mentioned are burned, and the lands upon which the fires are lighted are temporarily destroyed. The value of these essential mineral elements should be, and presently must be, added to the estimated cost of the crops grown upon the land, as they have taken out just that much of the fundamental value of the soil, which must at some time be returned, if the land is to continue to grow the crops that will feed the people. So ruthlessly have we robbed the earth, taking every-

thing they were grazed without cost for almost the entire route to their destination. If we had wished to fatten them, we could have bought the corn in Kansas and Nebraska for ten or twelve cents a bushel, that was grown upon land then worth ten to twenty dollars per acre.

Open ranges are a thing of the past. There is no more free grass. Lands, we could then purchase for \$10 an acre is now worth \$100 to \$150 per acre. The interest count is therefore ten or fifteen times what it then was. Corn that was then worth ten cents, is now worth 50 cents to 60 cents at the crib. These are some of the reasons for the higher cost of living. The lands of this nation have seemingly been so abundant in quantity, and so eternal in fertility, that we have ruthlessly destroyed them.

Millions and millions of once fertile acres are now known as "Bad Lands," past all redemption, and more than one-half of all the land in cultivation in the United States has markedly deteriorated, and the robbery and devastation, if possible, is more rampant and on a larger scale than ever before, all over this great nation.

We have been, to a great extent, a race of land speculators in contradistinction to a race of homebuilders. Land has been so cheap, so easy to obtain, that we have failed to realize how vital it is to the life of the nation, and the prosperity of its people, now and for all time that we should conserve its fertility and treasure the land as a thousandfold our greatest material asset.

One hundred years ago, we had seven millions of people. We now have approximately one hundred millions. At the present ratio of increase, we will prob-

Answers to Inquiries.

Planting Shrubs in Poor Soil.

My Dear Niece:—When planting shrubs on very poor soil, it is well to make the holes where they are planted somewhat larger than ordinary and then get wheelbarrows full of good garden soil to place around the roots of the shrubs and to fill up the holes, throwing away the poor soil taken out of the holes. In this way almost any shrub will thrive if the soil is packed firmly about the roots at planting.

I think your idea is to have a bed of shrubbery in front of your foundation wall. If so, the shrubs should be planted 18 inches apart, and I would suggest a half circle form of bed. The outer two rows should be of California privet, which can be kept cut low. To fill up the interior of the bed use spiraea and mixed hardy shrubs similar to that, which I will be glad to select for you, if you will tell me about the number you want or about how much you want to invest in these shrubs, which are not expensive, the price varying from 10 cents to 25 cents each. There might be a few small evergreens put in with the shrubs. State whether you want two, three or four dollars worth. I am confident that I can select for you, shrubs that will grow and thrive if you plant them as I suggest. They will probably live if planted in the soil as it now stands, but would not thrive as well as though you secured some good soil to place over the roots when planting. Do not place any kind of fertilizer in contact with the roots when planting.

Usually on city lots, you find some good garden soil at the farthest rear end of the garden. Probably the subsoil from the cellar was placed in front of the house and this is very poor. As your soil is only 18 inches deep, during very dry spells you should water this bed, especially for the first season.

Buying a Farm Without Money.

Charles A. Green:—I have a list of farms for sale or rent, some are unoccupied; the Department of Agriculture of Albany, have listed over 1,000 farms in New York State.

Some one must move on these farms. My husband and I wish to take one of these farms, but we have not the money to begin on a farm. I am not begging, but this is my idea.

If some wealthy person would be interested enough to furnish the money, about \$2,500, and give us time enough to pay it back on easy terms. Mr. Green, do you know of any one you could influence to do this?

You see, we must make a cash payment on the farm when we take it, and we would need at least, to begin, two horses, three cows, fifty chickens, wagon, some implements, seed, fertilizer, a small engine to saw timber, and I want to raise all kinds of fruit; we would not want more than 75 or 100 acres.

Many farms are offered very reasonable, so if we would have about \$2,500, we could get what I mentioned above and pay for it, and then pay back as fast as we could to the person that would loan the money.

We are honest, industrious people, could give reference.—Subscriber.

C. A. Green's Reply: As a business proposition no careful business man would loan money on the terms you mention. Can you not see that you would have no security to give to the person who loaned you this money, or at least but little security? The world is full of people who are possessed with the idea that if they had \$2,000 or \$3,000, they could invest it in a farm or some other way and at once become prosperous.

It is true, that there are some people who could make a success if they had a little capital to start with, but there are many more who could not succeed even if the \$2,000 or \$3,000 capital were furnished by some sympathetic friend, for it is not every person who has a knack of managing business affairs, and the farm is a business affair.

If an individual has been thrifty enough and forehanded enough and shrewd enough to save from his earnings a thousand dollars or more, here is evidence that this individual may succeed by investing that little saved capital in a farm, for he has already shown by having accumulated his money that he has some business ability.

How Much Lime on Soil?

Editor of Green's Fruit Grower:—We would like to know how to apply lime to our vegetable garden, fruit trees, flower beds, etc. As our growing things have not done nearly so well the last few years as previously, in spite of application of fertilizers, manure, etc., we begin to think that perhaps our soil needs sweetening with lime. The quantity some recommend seems so small, that we would hardly know how to scatter it over a

surface of 60 feet by 100 feet vegetable garden. Will you please tell us what quantity we should use and how and when to apply it. If in the fall, can it go over Crimson clover? Can we put it on the surface of the flower beds in early winter? Even the seed that I generally raise in the house did not mature quickly—could the soil from the garden been at fault?

What remedy would you apply for the little beetle that attacks the leaves of cucumber and squash vines, turns them yellow and finally kills the vines. I have been applying slug shot, but feared there was danger of getting it on blossoms.—A Subscriber, Pa.

C. A. Green's Reply: Air-slacked lime can be applied to the soil safely at any time when plants are not growing. Under certain conditions the lime might injure the foliage of plants, therefore I would not use it during the growing season. The amount to be applied to a plot 60 by 100 feet, I would estimate to be about one bushel of slacked lime. Usually a ton of slacked lime may be safely applied to an acre of soil, or if two tons were applied it would do no harm, but annual dressing of moderate amounts is preferred rather than excessive applications in one year. You can buy lime already air-slacked cheaper than you can buy the fresh lime, and slack it yourself. Where fresh lime unslacked is to be used it is placed in piles at regular intervals over a field and covered with fresh earth. It soon slackens and becomes as fine as flour at which time a man with a shovel spreads the lime carefully over the surface of the field.

Any insect that consumes the foliage of any plant or vine can be destroyed by a spray containing in solution Paris green or arsenate of lead.

About Different Kinds of Raspberries.

Mr. A. C. Worth of New York City has mailed us samples of raspberries, but such berries seldom come in good condition and these have not arrived at all. He speaks of a small purple berry. I know of no such purple berry. Shaffer when well grown, is a very large purple berry of far better quality than Columbian. Columbian in some instances is a little larger, a little more productive and a little harder than Shaffer. The bright red berries he speaks of must be Ruby or Cuthbert, both valuable varieties.

The Erie blackberry is an upright grower so far as I remember, but not so strong a grower as Kittatinny.

Planting Walnuts.

Editor of Green's Fruit Grower:—I am a reader and subscriber to your valuable journal, The Fruit Grower, and would like to have you enlighten me in the next issue on the following: I have about six acres of second growth timber on rolling sandy loam soil that I would like to start some walnuts in. This is not pastured. I have a half bushel of walnuts gathered last year, 1911—outside shucks off; would they grow if they were planted around through these woods some time this fall.—Ray Binkley.

C. A. Green's Reply: It is doubtful if the nuts gathered last year, would grow if planted now. All nuts and seeds of trees should be planted at once after gathering them, in order to secure the best results.

Shall I Buy an Old Orchard or Plant New?

Green's Fruit Grower:—I have noticed in reading different numbers of the Fruit Grower, quite a lot in regard to the care of apple orchards, and have been very much interested in them, as I am most all fruits. I am going to ask a favor of you, that is, if you will give me an answer in your next issue. I have been approached by a man who has a large apple orchard in Northfield, N. H., the orchard has about 900 trees, mostly Baldwins, but they are in poor condition. They look like quite old trees, but the man says that they are not, they are very scaly and the bark is very rough. There is a large number of dead limbs on every one, they haven't been cared for, very much neglected, although he says that he gave them one spraying this year about the first of June, this orchard is located on two hills with a southeast slope and cover the hills completely on top and down the southeast slope nearly to the bottom, this orchard is in the woods, nothing but woods for a mile around it, but the hills on which the apple trees are, is all clear and grass growing. I would like to have your opinion as to whether it would be better for me to buy this orchard and try and bring it back to what it ought to be or would it be better for me to buy some land and plant all new ones? I can get this orchard on very easy terms, and the nearest neighbor said that they picked 700 barrels of apples two years ago. Do you think it advisable to buy this orchard.—H. W. Belcher, Mass.

C. A. Green's Reply: Since apple trees properly cared for are long lived, often living to be over a hundred years old, I should favor buying the old orchard rather than to plant a new one, providing the old trees are in fairly good condition.

If the old orchard has been injured by injurious cutting off of large branches, which has induced decay, I should hesitate to buy the old orchard, but this is probably not the case as a rule in your prospective orchard. If the trees are excessively high so that the picking of the fruit will be expensive, this will be an argument against buying the old orchard, for fruit, thirty feet from the ground on an apple tree is hardly worth picking. If the orchard is located where good apples are not freely produced or where there is often a season when there is no fruit at all on the trees, I would hesitate in buying the old orchard or even buying a new orchard in that locality. You cannot expect any orchard to bear a big crop every year, but if there are several years of barrenness it would indicate that the orchard is not well located for productiveness.

Wait until this fall when the trees are bearing fruit and examine the fruit carefully and see whether it is largely of marketable size and whether the varieties are desirable and profitable, or whether the trees are bearing winter fruit or summer fruit. In some localities, summer or fall fruit is not so valuable as winter fruit, but in other localities near large cities, summer and fall fruit is the most profitable.

Do not forget that in buying an orchard of 900 trees, you should give the matter careful consideration and possibly get the advice of an expert.

Editor of Green's Fruit Grower:—I note on page 18, of your July issue, the advice to put down the title and page of book of any subject noted in your reading which you may wish to take up again.

I beg to strongly recommend a card-index for such purposes. I have been making one for several years and have several thousand cards, classified according to subject. One of the periodicals I am preserving and indexing is Green's Fruit Grower. Have just indexed the July number, and on counting up, find I have made 41 references on that number alone.—Chas. G. Atkins.

Mr. Albert T. Rowe, Conn.—I cannot say what the name of the apple you refer to may be which you desire to graft on other trees. There is danger of there being scale on the twigs you use as scions, but I should think you could examine the twigs carefully and remove any scale, you find there, especially if you use a magnifying glass. Look carefully around the base of the bud for scale. There is a gas used to kill the scale, but I assume, you would not want to bother with that, as it requires some experience to use it at the proper strength. Plant the Ben Davis trees for the purpose of grafting to the apple you desire to propagate.

Fruit Farm Near Binghamton, New York.

Mr. Chas. A. Green:—As a subscriber to the Fruit Grower, I would like to ask a little advice of you, as through this section, there is not much fruit grown, so do you know enough about the conditions of things here to know as whether fruit growing could be made to pay here or not? I have bought a farm of 12 acres and I would like to set out some red and black raspberries and blackberries. I notice you advise setting these in October or November. Would you advise the setting of fruit trees, such as apple, pear, peaches, cherries and plums or grape vines in the fall or spring. Some agents have advised me to wait until spring, others in the fall.—A. Van Barriger.

C. A. Green's Reply: I see no reason why you should not succeed with small fruits also with the hardy tree fruits near Binghamton, N. Y. Select high land naturally well drained and the best soil you have. Select hardy varieties.

I send you our catalogue and will be pleased to receive your order now or later. If your ground is well fitted they can be planted this fall or next spring, when ever you have the most time.

Bark Splitting.

C. A. Green:—As I am a subscriber of your valuable magazine and take this opportunity to ask you a question.

Can you suggest anything that will prevent a tree from splitting at the trunk? I have several trees about 12 years old that look as if they would split into pieces. Have you any idea what I could use to prevent it.—D. A. Sharelts, Md.

C. A. Green's Reply: If the bark of trees split in summer, it is probably caused by heat or hot rays of the sun, and this may be prevented by shading of the tree on the south side by a strip of board.

If the bark of a young tree splits in winter or in early spring it is probably caused by severe freezing or too rapid thawing. Possibly a remedy for winter splitting may be to shade on the south side of the tree.

Raspberry Sucker Plants.

Green's Fruit Grower:—I saw in the Fruit Grower a few months back, something about sucker plants of the red raspberry. Some man thought they were not as good as others and you or somebody else could see no difference. Well, what say you now? I have some nice sucker plants, some of them quite good size. Shall I set them out? If so, how low shall I cut them?

I have some large black and some "Hay Maker" purple raspberries that I forgot to top in July, they are now from six to eight feet high and bouncers; what shall I do with them?—Rev. W. Joy, Mich.

C. A. Green's Reply: Sucker plants if not too old and overgrown, will make good plantations of red raspberries. Dig the plants any time after the leaves fall and plant them carefully. If planted in the fall, throw a forkful of litter around each plant to prevent heaving by frost. Do not dig up and transplant an entire old stool of red raspberries for they would never become thrifty. New sucker plants of last year's growth are the best for transplanting.

Preserving Fruit for Exhibition.

C. A. Green:—Would like to ask you for a little information. How can fruit be preserved raw, for a county show, such as prunes, peaches, plums and pears? We received first prizes for this fruit named above at the Merchants Annual outing. Our county show will be late next month and would like to have some fruit for exhibition, but do not know how to preserve these fruits. Kindly let me know at once. Any information you can give me for preserving raw fruit will be highly appreciated.—L. H. Roth, W. Va.

C. A. Green's Reply: I have no definite or accurate formula. I have preserved specimens in water in which a generous amount of salicylic acid has been dissolved, say a teaspoonful to a quart of water, but I cannot recommend this as being a safe formula. You want something that will not destroy the color and that will preserve the flesh. Alcohol would preserve the flesh, but would probably destroy the color.

If any of our readers have a recipe will you kindly give it for publication.

There is no formula known to U.S. Pomological Department. Dip in melted rosin or varnish.

Gooseberries.—C. A. Green:—I have a number of gooseberry and currant bushes which I desire to thin out and transplant. Will you be kind enough to state the proper method. Also the best method to use in doing the same with currant bushes.—Joseph B. Appleby, New Jersey.

C. A. Green's Reply: Old gooseberries and currant bushes are of no value for transplanting. The best that you can do is to dig the plants in October or April and pull off from each plant one or more rooted branches or layers and plant these rooted branches or layers.

Grape Juice.

Green's Fruit Grower:—1. Is there any grape equal to or superior to the Concord grape for making Grape juice?

2. Can you give a good recipe for making grape juice?

3. Will Niagara grapes make good grape juice, that is will it keep?—W. N. Stone, Virginia.

C. A. Green's Reply: Concord is the grape most largely used for making the grape juice bottled by the large bottling houses and sold at wholesale and retail. I see no reason why the Niagara or any other northern grapes that are ripe, should not make unfermented grape juice. I give below a recipe for making grape juice at home.

Grape Juice.—One peck of grapes to two quarts of water. Pick sound Concord grapes from stems and put in a stone crock and set in a large vessel of water. As soon as they begin to cook, keep stirring and pressing with a wooden spoon. Cook about two hours or until soft, and then strain, but do not squeeze any pulp through bag. To each quart of juice allow two thirds of a cupful of granulated sugar. Cook steadily half an hour, taking off scum. Pour into bottles and seal. Be sure and sterilize bottles by putting in cold water and boiling for half an hour.

The difference between the weak and the powerful is energy—invisible determination—a purpose once formed and then death or victory. Energy will do anything that can be done in the world.

Best Small Fruits for Market.

J. H. Reynolds of Ohio, wants reply through the Fruit Grower as to what varieties of small fruits are best, gooseberries, currants, raspberries, strawberries, etc. Do we advise one year plants or older?

C. A. Green's Reply: I assume that the writer refers to small fruits for market,

fitted by applications of mulch about the root system, but the sense in which we speak of mulching the strawberry is different, quite, from the application of litter to various other bearing plants.

In our north temperate climate, we can not expect this fruit plant to perform properly and bear a profitable crop of fruit unless we mulch more or less during our rigorous winter season.

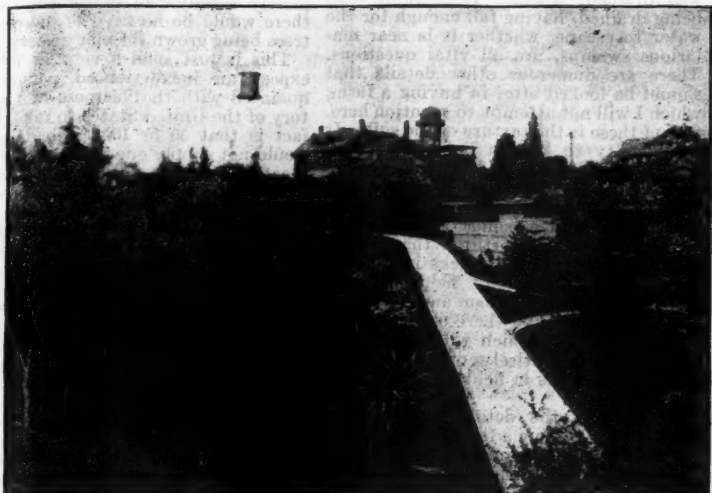
Too heavy an application of mulch

manure upon this crop, is repeated light applications in early autumn, which stimulates root growth, giving the plants a firm hold upon the soil. Barn yard manure is a great stimulant to plant growth and has a tendency to sprout and bring forth a rank growth of weeds. Knowing this to be the case, many object to its use upon the strawberry, claiming it to be a disseminator of weeds.

This is not the case however, as it is not a carrier of weed seeds if clean manure is available, but stimulates weed growth

quinces only? Is it a fact that quinces on the whole are less exposed to attacks of insects and sudden changes of temperature, and require less attention than other fruit?

Are you in a position to recommend any specially well suited locality inside of a radius of 50 miles around New York city? What prices would you make for four to five feet quince trees, assorted, in quantities of at least 3,000? Have you any literature referring to this subject, and will you mail same to me, charged or



1. THE BUSCH GARDENS.

as he says he has already planted an acre or more, therefore he wants to know what small fruits are most profitable and what varieties. My experience is that in certain years one small fruit may be most profitable and the next year another may be most profitable, depending upon the season and other circumstances. When I began fruit growing, I did not confine myself to one kind of small fruit, but grew the currant, gooseberry, red and black raspberry, blackberry, grape and strawberry. As to what varieties of small fruits are most profitable, different varieties vary in productiveness on different soils and different locations, so that possibly the variety that will yield most fruit and most profit in Ohio may not yield the best in Pennsylvania or Massachusetts. Generally speaking, the following are the best and most reliable varieties: Downing gooseberry; Red Cross, Diploma and Wilder currants; Syracuse red raspberry; Senator Dunlap, Corsican, Brandywine, Glen Mary strawberry; Columbian purple raspberry. I would not set out plants older than one year. When a boy on the farm I dug up wild raspberry plants that were two or three years old and planted them in the garden, giving them good culture but they never bore fruit of consequence.

Peach Grub.

Green's Fruit Grower:—Being a subscriber to your valued journal, I write to you for information in regard to a peach tree I have in my garden. The tree is a Crawford peach, three years old. Bore its first crop this summer, had a good crop, but the fruit was wormy and on the trunk of tree and limbs there is a gummy substance oozing out of some. The tree has never been sprayed.—Walert M. Williams, Miss.

C. A. Green's Reply: If the leaves of your peach trees are yellow in color, this

material is quite as bad as none whatever, hence the agriculturist who would protect his strawberries perfectly, must make a close study of systems, conditions, materials used and the reason why we use them.

Quite often a heavily mulched bed left too late in the early growing season by a careless owner, results in weakened plants and light crop. Hence it might be

from seeds already stored up in the soil.

When the late potatoes are dug, the patches are raked over and the tops hauled into piles near the strawberry plants.

With the coming of the first solid freeze these tops are evenly distributed over the plants and make a perfectly clean mulch.

We have also had splendid results from the use of bean tops after the threshing

free of charge?—W. H. Stavenhagen, New York City.

C. A. Green's Reply:—I do not advise any fruit grower to confine himself to any one fruit, such as quinces, pears, peaches or grapes as a rule. There are instances however, where the locality is so particularly favorable to one fruit that it might be best to devote the entire attention to one variety.

The objection to growing one fruit is that if the crop fails, your revenue is cut off for that year, whereas, if you were growing both small and large fruits, you would be sure to have some money coming in every year, whenever a few of the fruits failed to produce crops any one year.

I have had personal experience in growing nearly all the hardy small fruits and hardy large fruits in Western New York, under circumstances where it was absolutely necessary that I should have some revenue every year. I could not afford to risk everything on one crop which might fail and leave me without any ready money. I have found a further advantage in having an assortment of small and large fruits, for in sending out my wagon to supply patrons in the open country and in the villages, if I had an assortment of fruits, almost every family would want something that I had on my wagon, whereas if I had only quinces or grapes or pears, I would not be in position to meet the varied wants of my patrons.

Four to five foot quince trees are very large, larger than I would advise planting. I would advise planting three to four foot trees, which would be just as valuable and even more so and which could be bought at a considerably lower price. I have no literature exclusively devoted to this subject.

Tobacco Testers.

There is a class of officials whose activity is little known to the other world. These



3. THE DRIVEWAY.

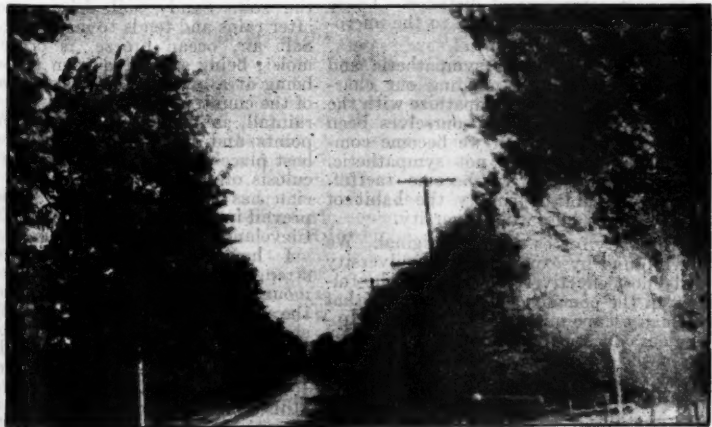
Photographs on this page are scenes from California. The first of above three photographs are taken in Busch Gardens, Pasadena, California. The grounds consist in a series of terraces and sunken gardens, containing every known variety of plant, shrub and tree and the whole presenting a wonderful triumph of landscape gardening. The trees along the "Driveway" are magnificent specimens of Live Oak. "The Flower Bank" is a collection of Scarlet Geraniums and White Marguerites with a border of Palm and Pepper trees. "Magnolia Avenue" is also in California, is several miles in length and has down either side a double row of Magnolia and Palm trees. "The Tropical Lagoon" is on a private garden, Smiley Heights of Redlands, Cal. The tiny lagoon is surrounded by Palm, Live Oak and Magnolia trees and has a border of small flowers about the edge.—J. C. Helphrey, Cal.

better to allow the plants to shift for themselves unmulched.

When plants are dormant, heavy mulches will not injure them greatly. This damage occurs seriously when stable

out and have also grown, soy bean hay which is coarse and fibrous and an excellent cover as well as fertilizer for the berry crop when decayed.

During the winter season we make light



4. MAGNOLIA AVENUE.

indicates peach yellows, and the tree should be dug up and burned without delay.

Where the gum exudes near the ground it indicates that the white peach grub is at work at the roots or under the bark, and should be dug up and destroyed.

The Sense in Mulching Strawberries.

Editor of Green's Fruit Grower:—All Fruit bearing trees and plants are bene-

manures are applied heavily or carelessly or in case of clover chaff or other straw chaffs.

Coarse materials serve the purpose best, and answer required merits in case of heaving by frost.

Stable manure is beneficial to the plants in light applications applied often, but when applied heavily as an entire mulch, will cause a rampant growth of leaves and runners and a light setting of berries.

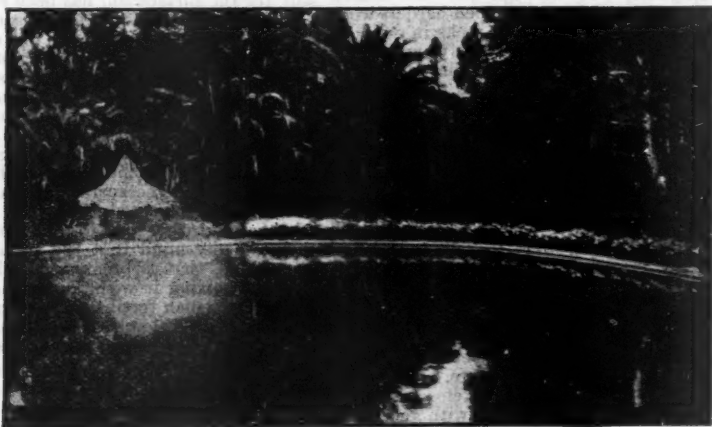
Hence our method of using farm yard

applications of stable manure allowing the winter rains to drench the fertility out as plant food.—Geo. W. Brown, Hancock Co., Ohio.

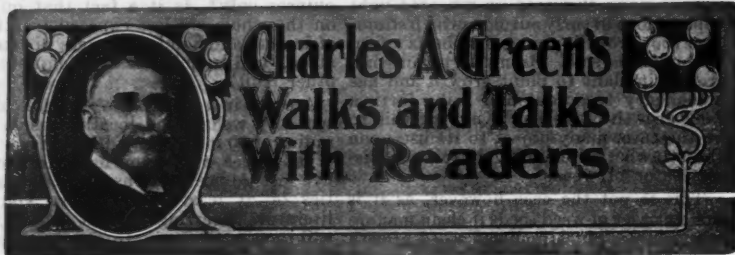
Quinces.—C. A. Green:—I have the intention to start a small orchard or fruit farm. Will you kindly give me the following information:

Do you think it advisable from a financial standpoint to grow, for instance,

men are official tobacco testers and they pass judgment on every kind of tobacco manufactured in France. They consist of a chairman and five assistants, and from morning till evening they have nothing to do but smoke cigars, cigarettes and pipes, in order to arrive at an estimate of the different kinds of tobacco submitted to them. The pleasantest part of the day's work comes when it falls to their lot to test the high-priced Havana cigars sold by the state.—London Tit-Bits.



5. A TROPICAL LAGOON.



Charles A. Green's Walks and Talks With Readers

"Think nothing done while aught remains to do" said Napoleon.

ROCHESTER, N. Y., OCTOBER, 1912

"We Are All Here."

In a Southern cemetery there is a large burial lot on which is an expensive monument. On this monument these words appear: "We Are All Here."

The above words were seemingly written by the last survivor of a large family. The few words written on the monument would seem to say, "My grandfather and grandmother, my father and mother, William, Thomas, John, Susan, Jane, Mary and Sarah Ann, and my nephews, Willie, Tony, Dick and Jack, and my nieces, Rebecca, Penelope, Ruth and Naomi, after struggling with the vicissitudes of life from babyhood upwards, at last all lie sleeping here. The path of glory leads but to the grave."

The writer of this epitaph, "We Are All Here," must have been of a prosaic turn of mind. He could not have been a believer in Christianity or the Bible. If he had been a Christian, he would have written on the monument: "Do Not Seek Us Here, for if you do, you will find only our bones. We have departed to a better clime where there is no frost, no burning heat, no storms, no floods, no sickness or disease, no persecutors, no robbers or murderers, none to molest or make afraid."

Nature Never Resting.

In riding through the country on the same road where I had traveled one week previous, I noticed the changes that had taken place in seven days. The wheat and the timothy grass had headed out, the fruit on the apple trees had developed from fading blossoms to apples of appreciable size, the June grass was ripening and ready for cutting and the clover was nearly ready to blossom.

On every side I could see that nature had not rested for a moment. The old saying is that the crops grow while the farmer sleeps. Nature is ever at work and has been at work seemingly forever on this globe, but at least for several million years.

Let us consider for a moment the achievement of these million years of nature's work on the earth. From nebulae the earth was formed, from chaos was developed a tangible globe. Then the waters were separated from the earth, mountain ranges were thrown up and partially smoothed down by the glaciers which were God's plows. Gradually soil was made of the pulverized rock and the decay of vegetation. Then crude creatures came to life and were gradually transformed into higher organisms until we come to man and his surroundings of the present day.

He Made a Mistake.

Traveling through a wild part of New England, and through the Adirondack mountains, I have seen men hard at work digging out stumps and rocks in order to clear up poor land on which to grow farm crops. I decided at once that these men were making a mistake, and that it would cost more to clear up and place under cultivation such fields than they would be worth after the clearing had been made. These men probably did not know how much it would cost to clear a field of stumps, rocks and growing bushes or saplings. On the light sandy soil of Florida I was told that it was assumed that it would cost over \$40.00 per acre to clear out trees. There were no rocks there to obstruct. My opinion is that an average acre of land in New Hampshire or in the Adirondacks cannot be cleared of rock, stumps and other obstacles for less than from \$70.00 to \$100 per acre. One of the fields which I saw being cleared, which was heavily encumbered with rocks and stones, I am certain could not be cleared for \$100, and yet the owner had undertaken this job.

You can buy good farms in Western New York, which is a fruit growing section as well as a good farming section, for from \$75.00 to \$200 per acre. The buildings on these farms generally represent nearly half the price which is asked for the farm, therefore if you paid \$200 an acre for a farm here, you would not be paying over \$100 an acre for the land itself. My opinion is that it would be a better investment to buy a good farm in a good locality than to buy and clear up wild,

rocky or stumpy soil in a locality not so desirable.

Consider the difference between a stumpy and rock New Hampshire or Adirondack, N. Y. farm and a virgin farm in Iowa or Dakota, which has not a rock or stone upon it or a stump or a bush or sapling, but which is already for inserting the plow, turning the furrow and sowing the grain. And consider the additional fertility of the Western farm as compared with those I have alluded to in the East.

Problems In Cold Storage House Construction.

Nurserymen erect something like cold storage houses, that is frostproof buildings, made so by having numerous air spaces between the outer and the inner surface to keep out frost. They have no difficulty in keeping out severe frost, but find that the timber, which is seldom perfectly dry, accumulates moisture both on the inner and outer parts and this moisture cannot be dried out by any known means in such damp buildings, therefore nurserymen find that their roofs and also the sides of the buildings, but more particularly the roofs, decay. It is found that eight or nine years is about the length of time which these ceilings will endure on account of rotting of the timber.

That useful magazine, called "Cold," says that this inclination to decay can be obviated by using rotproof material where shavings and sawdust have previously been used, and by covering the inner surface under the last sheathing board with waterproof paper prevent access of moisture. This magazine says that even the condensation of moisture could be entirely prevented by covering shavings with waterproof paper and boarding. Sawdust as ordinarily used will mold and rot in time and lose its insulating value. The same is true of shavings, ventilated cork, or any of the ordinary materials used. Mineral wool will not burn or decay. As I understand, mineral wool is a form of asbestos.

Is Sub-Soil Ever a Means of Fertility.

Most land owners dread to plow up to the surface sub-soil. They have a feeling that the sub-soil will injure the upper soil when mixed with it.

There are many kinds of sub-soil. Where the sub-soil contains clay, I have learned that it may be used for the purpose of adding fertility to the surface soil, particularly if the surface soil is sandy. At my Rochester home, the surface soil is sandy and the sub-soil clay. I find this clayey sub-soil contains much fertility, and I have succeeded in securing a beautiful lawn, and in growing fine strawberries and other fruits, on sub-soil, for the surface soil has been entirely removed in grading the home grounds.

On a ten-acre tract near the city of Rochester is a knoll which was not at all fertile, and on which the crops were always poor. I trenched this poor strip of land deeply digging up six or more inches of the sub-soil in order to heel in some large fruit trees. The surface soil was in some cases buried and the sub-soil brought to the surface. I find that this poor spot produces much larger crops of hay than formerly. There is no doubt in my mind that the trenching I have done, that is breaking up the sub-soil and mixing it with the surface soil, has added much fertility to this poverty stricken strip of land. I would not however, advise turning up much sub-soil during any one season.

Buying a Farm.

There are many things to be considered in buying the farm. You are not simply making an investment, you are not only engaging in business in a certain spot under certain peculiar conditions, but you are establishing a home, which should be a permanent home.

Perhaps this question of selecting a home ought to be the first thing to consider, for if the home is not wisely selected and is undesirable from the point of health, congeniality of neighbors or within easy distance of a railroad depot, church, schools and market, it cannot be considered a good investment for your

occupancy, no matter what the price may be which you have to pay.

The wife and children should be discussed and should have an opportunity to see the farm you think of buying before you complete the purchase. What will a farmer do with a homesick and discontented wife on the new farm?

The selection of the character of the soil, its depth and fertility, and whether it lies high or low, whether it is naturally well drained, whether it is subject to being drained, having fall enough for the water to escape, whether it is near malarious swamps, are all vital questions. There are numerous other details that should be looked after in buying a farm, which I will not attempt to mention here. One of these is the texture of the soil. It is difficult to keep a light sandy soil fertile. Sandy soil requires the application annually of far more fertilizers than a clayey loam. A clayey loam is not so easily cultivated as sandy soil, but contains vastly more fertility than sandy soil. Stiff clay which cracks in the sun is objectionable. Many fields have a clayey loam or sandy loam and still there are patches here and there on every field that is stiff clay which will plow up in lumps. Fields entirely of stiff clay or even clay patches in fields are objectionable.

Considering the details necessary to look after in buying a farm, which I have only hinted at, how unwise must be the man who buys or trades for a farm which he has never seen. I hear of men who have traded fertile farms which they have spent their lives in making valuable by picking off the stones, by enriching the soil, by fencing and constructing buildings, for farms absolutely worthless in Florida or elsewhere, which they have never seen. Some of these farms, that eastern farms are thus purchased or traded for, are swamp lands covered with water and absolutely undrainable.

The School of Adversity.

When we ask whether the man or boy has had more than book knowledge, we usually refer to book knowledge, and affairs as are taught in schools, but the fact remains that every living human being is hourly and daily being schooled or taught in something, thus a man may be deficient in book knowledge but remarkably well informed on other subjects. Adversity is one of the great forces that instruct and mold us into types of usefulness. Adversity is a great schoolmaster, making of us strong men and women.

It is natural for us to shrink from adversity as we would from having a tooth extracted or an arm or a leg detached from our bodies, and yet without adversity we would be pitiable members of the human family.

It is largely through adversity that the race of man has risen to its present advanced position. Adversity has assailed man from his earliest history, compelling him to action and to advancement. In early days, if man was assailed with stones thrown by the hand, he felt compelled to invent the sling in order to conquer. The sling was followed by the bow and arrow, the catapult, and ultimately by the sword, gun and cannon.

Man's hearing is not acute. This necessitated some method of conveying the human voice, which led to the speaking trumpet, the annunciator, and finally to the telephone. The eyesight of man is well calculated for the ordinary uses of business, but is not capable of detecting the smaller creations nor for peering into vast astronomical distance. These defects of the eye have led to the microscope and the telescope.

Adversity makes us sympathetic and companionable, thus molding our characters. How can we sympathize with the afflicted if we have not ourselves been afflicted, and how can we become companionable if we are not sympathetic. Through adversity we become tactful. A tactful habit is simply the habit of evading or ameliorating adversity.

Adversity forces us to be original. We have found by experience that adversity falls most effectively upon those who follow in the common rut of life and that we can escape misfortune often by shaping our course over new fields and through by-paths seldom trod, and thus we become original.

Adversity is the parent of push, grit and perseverance. It did not take man long to discover that adversity could not be overcome by lying down and going to sleep, but by pushing things vigorously. If we have to climb a steep hill with a machine bearing a heavy load, we begin to push before we come to the hill and get up good speed, which enables us to mount with greater ease. Sometimes when a machine is struck with adversity a little oil is helpful but often we need grit, the sand that the engineer throws upon the railroad track to give the engine greater force. Persistence is ever effective, but there would be little persistence were there no adversity.

Is Plant, Vine and Tree Growing Overdone?

An old gentleman entered the yard where from 50 to 100 carloads of trees were being prepared for storage or shipment. Glancing about at the immense stacks of trees on every side, he exclaimed, "Surely nobody will want trees next year."

This old man's thought was that this vast number of fruit trees would so completely supply the entire country that there would be no need of more nursery trees being grown for many years.

This is just such a view as we would expect an inexperienced person unacquainted with the vastness of the territory of the United States to take, but the fact is that 50 or 100 carloads of trees would not supply one small corner of this great continent, and that while there may have been a million carloads of trees dug and sold this past spring, there will be needed as many more next spring. Indeed the demand is increasing instead of decreasing. Assuming that there are 10,000,000 farms in this country, it is safe to say that not one in 100 of these farms is well supplied with the strawberry, raspberry, blackberry, currant, grape, apple, peach, pear, plum, cherry, quince and other hardy fruits, which might be produced in abundance if the owners could be persuaded to invest five or ten dollars, and to plant the vines and trees, and give them the necessary care. But the condition of American farmers is improving, not only in the character of their houses and barns, and in the attention and skill given to their land, but in surrounding the farm home with such luxuries as freshly picked fruit. I can see this as regards the small fruits, which in past years the farmer has not been inclined to bother himself about, with perhaps the exception of a few grape vines. Of late years you will see more farmers having a strawberry bed and a plantation of raspberries, blackberries and currants.

It is not many years ago that few farmers or villagers were ordering from nurseries ornamental flowering plants, ornamental vines and trees, but of late years I notice that there are more of these items being planted throughout the country. While it is held that there is no more profitable method of employing the soil than in planting a fruit tree, it is possible that an ornamental tree or vine or a bed of flowering shrubs may add more to the value of a farm, village or city home than an equal space devoted to fruit trees.

It is possible that there may some time be a lull in the planting of large orchards in this country, but when it will come, I cannot say, for there seems to be a continual growing demand for fine fruits. I do not deem it possible that there will be a serious let up in the demand for trees, plants and vines for home planting. I mean for supplying the farmer's table.

Where Shall We Go for Health?

This is a question often asked the Editor of Green's Fruit Grower. Physicians are united in saying that there is not so much to be gained in one climate over another as many have assumed, and yet it is suspected that there may be something peculiar in the local climate of certain sections of the country. I have noticed that some invalids are benefitted by the climate of a certain locality where the air is moist, and that others do not feel so well there, but hasten away to a dry climate. Whether the climate is dry or moist, depends upon nearness to large bodies of water and to the character of the soil. Sandy soil dries up quickly after rains and tends to make the air dry. Salt air, ocean breeze, is of necessity moist, being saturated from the sea and being at a low level. There are sections of the country where there is scarcely any rainfall, as in Arizona and other Western points, and it is assumed that there is the best place for those suffering from tuberculosis or throat difficulties. My physician has told me that throat disorders prevail in the lake cities, such as Chicago, Cleveland, Detroit and Rochester, N. Y.

I have always felt refreshed and strengthened by a visit to the Adirondack mountains, where the soil is sandy and the air dry. I know of a lady who thought she could not survive away from the Adirondacks, but who was induced to try an elevated site in her home city of Rochester, N. Y., on one of the Pinnacle Hills, and found to her astonishment that she enjoyed as good health on the elevated site at Rochester, as she did in the Adirondack mountains, but this might not be the case with all invalids.

Strangers Please Call.

When Farmer Wisehead put up the sign on his front gate his neighbors thought he had turned crazy. Not so. It helped him advertise and sell his spare produce, won him a host of new friends, and he learned a lot of good points that otherwise he would never have known. Bless you, they called just out of curiosity.

—Frank I. Hanson.

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SORRY HE WENT.

He, to wife.—And you asked me to come with you to help you choose a pair of gloves!

Memory is an Art Gallery and a Store House.

Every man's home is something of an art gallery. I cannot remember ever seeing a home that did not have in it some pictures. When we commit an act, the picture of that act is written upon the walls of our memory forming there a gallery of pictures. If we would be happy then we must be careful of our conduct, for if we are not careful, some ugly picture will be hung upon the walls of our memory to embitter our lives forever after.

John B. Goff said he would give all the money he was worth if he could efface from the walls of his memory the picture ever present there, of driving his mother from her home, while Mr. Goff was besotted with drink, but there was no power on earth to efface this picture from John B. Goff's memory.

Often we are tempted to do wicked things, unjust things, unclean things. If we realized that in yielding to such temptations we placed upon the walls of our memory ugly pictures that may haunt us day and night during life we would hesitate long before yielding to such temptations.

If you visit an art gallery, you will see a great variety of paintings on exhibition. Many of them will be of the open fields, full of sunshine that lights up every shrub, vine, tree, or the lake or ocean. Such pictures as these brighten the gallery and the life.

You will see other pictures in the gallery representing storms, clouds, gloom and desolation. Let us be careful how we hang such pictures as these upon the walls of the art gallery of our memory. I once saw in a German exhibition a picture of Lazarus, the beggar, lying dead at the rich man's gate. If you, by an unjust act, have been the cause of some poor man's meeting such a death as this, what a blot does this picture cast upon the walls of your memory.

In the art gallery at Brussels, Belgium, I saw a painting of a man committing murder; who can wonder that murderer has a hang-dog look, an expression of disgust with himself and his surroundings, if he has hung upon the walls of his memory a picture like this.

Napoleon was able to rob the art galleries of Europe of their most valuable paintings. Fires have swept over cities destroying works of art, but no robber can steal nor any fire destroy or efface from the art gallery of your memory any one of its pictures. C. A. Green.

About Scraping the Trunks of Fruit Trees.

Scraping off the rough bark from fruit trees, especially the apple, is of doubtful expediency. We see on the trunks of forest trees old bark clinging there which has been present for perhaps a hundred years, doing the trees no injury. Especially is this the case with the hickory tree, some kinds of which are called shag bark hickory owing to the long strips of partly loose bark which clings to the trunks. The oak has thick and horny bark, but no one thinks of removing it. The loose rough bark of trees is intended by nature as a protection from the scalding sun of summer and possibly from the severe storms or frosts of winter.

But when the orchardist sees loose bark accumulating on his apple, pear or cherry trees, he feels like attacking it at once with a hoe or other implement and scraping it all off. There is one advantage in having the apple and other fruit trees freed of the rough loose bark, for it removes harbors for injurious insects. Where the bark is removed it should be carefully scraped up and the scrapings burned for there are sure to be in this refuse some eggs or bodies of injurious insects. Should you scrape the trunks of your trees to remove the rough bark be careful not to scrape deep enough to touch upon the inner or soft whitish bark.

GREEN'S FRUIT GROWER

AN ILLUSTRATED MONTHLY JOURNAL

GREEN'S FRUIT GROWER CO., Publishers

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EDITORIAL.

Sweet Cider.—In reply to G. W. Rainey, I will say that I do not know anything about the process of injecting carbonic acid gas into cider nor how it affects the cider. All I know is that a large manufacturer in this city sells at a higher price than the best wine sweet cider charged with carbonic acid gas.

A Famous Apple Tree.—A man of England has a small log cut in 1807 from the apple tree which revealed to Sir Isaac Newton the law of gravity. It is from this tree that Newton saw the apple fall and asked the question, "Why should it fall instead of rising in the air?" which led to the great discovery.

One of the great Roman rulers in retiring from office gave the following advice to his successor: "Do not appeal to those who think, for there are not enough people who think to amount to anything. Everybody can see, but few can think, therefore appeal to the eye and not to the mind if you would succeed."

Reply to Grape Grower.—To answer your letter in full would require a good sized book, and many of your questions could not be answered intelligently even if I were at your place.

Your climate being a month earlier is in your favor, as is your location near a body of water. You are reasonably near good markets, such as Washington, Baltimore, Philadelphia, and should get higher prices than ordinary for your early product.

Very rich soil is not necessary for grape growing. Upland is better than lowland. In any event, the soil must be well drained. As to varieties, your local vine growers can instruct you better than myself. In Western New York the Delaware, Niagara and Concord are the three leading grapes. Moore's Early is a good early black grape.

Birth and Death.—A recent writer says that it is more terrible to be born than to die. Here is food for thought. Humanity dreads death, but most people consider life a great privilege and would consider it a personal misfortune if they had never been born.

The writer referred to above evidently has a vision of the trials, struggles, failures, temptations, sorrows, and what Hamlet calls the "slings and slurs" that are common to all. The whole question is summed up in the thought, "Is life worth living?" If life is worth living, it is well that we have been born. We sometimes see people or hear of people who have been so unfortunate, and whose life has been so completely associated with grief, that we feel tempted to say that it would have been better if they had never been born.

Birds and Babies.—My friend who watched a robin nesting beneath the window of his home says that within four weeks after the eggs appeared in the nest the young birds had hatched and were flying about the yard. How remarkable that many wild creatures should develop so rapidly and attain strength and ability to care for themselves so quickly. Compare these young birds in their ability to move about on the wing so quickly after birth, with a babe, which has been said to be the most helpless of all living creatures. When the babe is a year old it is scarcely able to stand on its feet or to use its legs in moving about. The mind of the babe is as slow in developing as its body, whereas the intelligence of

the bird comes as quickly as the growth and the strength of its body. We should not assume that all this is chance. We should consider how necessary it is that the wild creatures gain strength rapidly, otherwise they would all be destroyed, while in a helpless condition by their numerous enemies. But the babe is well protected and nourished. We have here an intimation that great development means slow development. One of the greater forest trees is the oak, but it develops slowly. Man is likewise the greatest of the animal family and the slowest to develop.

The Western New York Apple Crop.

We have the promise of a large apple crop in Western New York. Apple buyers claim that the apple crop is marvelously large and that prices will be low, while apple growers as usual claim that there is a good fair crop and that prices will be high.

On August 27th, a heavy wind storm did much damage to apple orchards and to other fruits in Western New York, particularly about Medina and Spencerport.

There is a promise of a heavy crop of peaches in Western New York and the fruit is large and fine. It was thought that the pear crop would be very small but it is turning out better than was anticipated.

Before Agriculture Began.—We who are living today hardly realize that there was a time in the history of the world when there was no cultivation of the earth, no plowing of seed, no harvesting of crops, no agriculture, but there was such a time. There was an age, fifty thousand years ago, more or less, when man was a wild creature living in caves or in rude structures and trees, subsisting upon roots, the bark of roots, berries and other fruits, nuts, and such verdure as could be secured without any effort on his part except to pluck and eat. He probably was not capable of securing much game at this early period as he had no weapons, therefore man in the early ages must have been largely a vegetarian. There must have been at an early date some one man who was the father of agriculture and who made himself so by planting seeds for the first time in mother earth.

Increase in Nut Growing.—Nut growing has never received the attention it is now receiving in the United States. The planting of pecans has increased at the rate of 25 per cent. annually. Nurserymen are propagating twice as many nut trees as formerly. A pecan orchard of 600 acres in Georgia has recently been sold for \$200,000.

Our Associate Editor, Prof. H. E. Van Deman, has a thousand acres in Louisiana largely devoted to improved varieties of pecans. At present the highest quality of thin-shelled pecans are said to be selling at from 50 cents to \$1.25 per pound, but no one should rely upon such high prices for the nuts when the orchards now planted come into full bearing, unless the demand for pecans increases as the acreage of pecan orchards increases. But I do not doubt that pecan orchards will be a paying proposition. Pecans belong to the hickory nut family. Perhaps I might call them a Southern hickory nut.

Don't worry about your looks. You look all right to your friends, and the rest of the world doesn't care how you look.

How to Learn Whether People are Prosperous.

I know of no better illustration of the prosperity of the average citizen, but more particularly of the poorer classes, than to go to the savings banks, and learn whether the deposits are increasing. The savings banks laws in different states vary. In New York state savings banks are under the control of the state and are not allowed to invest money in anything but the most safe and sane securities, such as farm mortgages, mortgages on city real estate, municipal bonds and the higher grade of railroad bonds. These savings banks are in fact charitable institutions and are not managed primarily for profit. If a savings bank should make money, the money would belong to the depositors, to the poor people and not to the officers or managers of the savings bank in New York state.

It has become clearly understood that there is no safer place for depositing money than in the savings banks of New York state. If you will go into one of these banks near the first of the month, when interest begins and when deposits are most largely made, you will see the banking room completely filled and mostly with laboring people who have come to deposit money or to draw out a small sum to pay for rent or supplies. These good people have every assurance that their hard earned savings cannot be swept away or lost after being deposited in a savings bank.

I am often asked concerning safe investments by widows and others left with a few thousand dollars, which is all they have to care for them in their old age. My reply is that there is no safer place for money than in the savings banks of New York State. I cannot so surely recommend the savings banks of other states for I do not know what the laws of all the other states are. Doubtless in some other states, the laws regarding savings banks are the same as they are in this state. Here is the latest report of the resources of these savings banks, showing that the laboring people of New York state have increased their savings almost \$76,000,000 during the past year.

The total resources of 140 savings banks in this state reporting to the state banking department on July 1, 1912, were \$1,827,507,287.23, an increase of \$75,648,286.06 over the resources reported by 141 banks on the same day last year. During the same period the amount due depositors increased \$66,339,632.80, the total this year being \$1,660,564,190.73.

Wealthy people are not allowed to deposit large sums of money in any savings bank in New York state. No deposit larger than \$3,000 is allowed, therefore the above statement indicates that the laboring people are prospering both on farms and in the factories of cities.

Poor Proxy.

A gentleman who was once stopped by an old man begging replied, "Don't you know, my man, that fortune knocks once at every man's door?"

"Yes," said the old man, "he knocked at my door once, but I was out, and ever since then he has sent his daughter."

"His daughter?" replied the gentleman.

"What do you mean?"

"Why, Miss Fortune."—Flashlight.

CAREFUL DOCTOR.

Prescribed Change of Food Instead of Drugs.

It takes considerable courage for a doctor to deliberately prescribe only food for a despairing patient, instead of resorting to the usual list of medicines.

There are some truly scientific physicians among the present generation who recognize and treat conditions as they are and should be treated, regardless of the value to their pockets. Here's an instance:

"Four years ago I was taken with severe gastritis and nothing would stay on my stomach, so that I was on the verge of starvation."

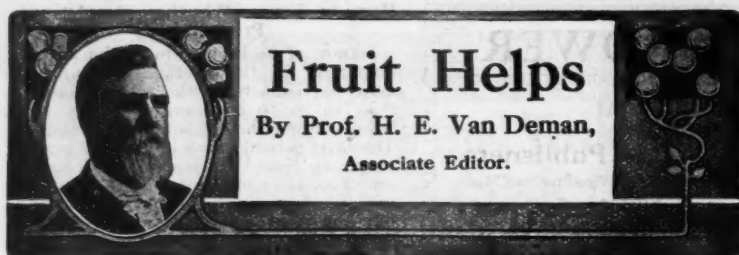
"I heard of a doctor who had a summer cottage near me—a specialist from N. Y.—and as a last hope, sent for him."

"After he examined me carefully he advised me to try a small quantity of Grape-Nuts at first, then as my stomach became stronger to eat more."

"I kept at it and gradually got so I could eat and digest three teaspoonfuls. Then I began to have color in my face, memory became clear, where before everything seemed a blank. My limbs got stronger and I could walk. So I steadily recovered."

"Now after a year on Grape-Nuts I weigh 153 lbs. My people were surprised at the way I grew fleshy and strong on this food." Name given by Postum Co., Battle Creek, Mich. Read the little book, "The Road to Wellville," in pkgs. "There's a reason."

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.



Fruit Helps

By Prof. H. E. Van Deman,
Associate Editor.

Apple Harvest Notes.

Again this country has been blessed with a bountiful crop of apples. In some sections it is not so abundant as usual but the systems of transportation are so complete now that no section need suffer for a supply of apples at fair prices. We have so much to be thankful for that we are apt to forget the good that we enjoy that nature and man combined have provided in the apple crop. It is our main dependence for fruit and this will always be so, for apples are and can always be produced cheaper than any other fruit of the same food value.

There are some thoughts about the better ways of handling the apple crop that we will do well to study into and remember to put in practice.

THE TIME TO GATHER.

The time is now at hand when the winter apples must be gathered. Some of them will be stored for home use and the rest sold or put in storage for sale later. The stage of maturity at which each variety should be gathered is one of the important things to know. This cannot be given as occurring at any fixed date but varied with the conditions of the seasons. It has been learned from experience that winter apples be taken from the trees too early and too late for good keeping. If too immature they will lack flavor and color and are far more subject to "storage scald" than if allowed more time on the trees. On the contrary, if the apples are left too long before picking they are sure to decay easily and will not keep as they should. Well colored but yet firm in flesh is the proper condition for their best quality and keeping as well. Be sure to observe closely and act on this plan.

HINTS ON PICKING.

There are some kinds of apples that will endure rather rough handling but it is very needful to handle all of them carefully if they are to keep well. Every bruise is a blemish and skin puncture will start decay at an early stage. Pulling out the stems will nearly always tear a hole into the flesh. Breaking off scraps of wood attached to the stems is also a bad practice for they are apt to punch holes in the skin of all that they touch.

PICKING RECEPTACLES.

There are differences of opinion about the use of pliant or rigid receptacles for the picking into from the trees, but the more general opinion favors the firm or rigid kind. Bags or any soft and pliant picking receptacles give opportunity for the apples to move and rub against each other or anything outside that they may touch and be bruised to some extent, which is not the case with those that are in rigid baskets, buckets or some such thing. However, this is a disputed point among practical fruit growers, but any plan that will give the least chance for fruit to be moved from one package to another or allow it to come in contact with things outside is best for its protection from bruises. Half bushel baskets with drop handles are very popular with apple growers. I was in the orchards and packing house of Joe A. Burton of Indiana, lately and this is the picking receptacle used there entirely. The apples are largely Grimes and need the most careful handling possible to prevent bruising, for every spot will show on the delicate surface and bag pickers had been rejected after testing them. The apples are picked into the baskets and are not moved out of them but once before going into the barrel or box in which they go to market. The baskets are carried from the orchard on a broad platform wagon of the best design I have ever seen and placed on the sorting table. There each basket is placed before a sorter with three empty baskets of the same kind about it, one on the right, one on the left and another directly beyond it. The first size is put in the basket to the right the second size on the left and the culls in the one beyond, making three grades. No really faulty or specked apples are put in the baskets in the orchard by the pickers so that all that come before the grader go into one of the three grades. This is a very simple and cheap plan and there are no apples sent to market in better shape or that bring a better price than those from the Burton orchards, so I have been told for several years past and those that I have seen bear out this statement.

There are excellent picking buckets made especially for the purpose, some of them having bottoms that allow the

apples to drop out with very little chance of bruising. These receptacles are always used in the orchard only and this makes a shift of the fruit to boxes or baskets that are taken to the packing tables. With proper care there need be little bruising.

PICKING LADDERS.

There are many styles of ladders used for picking and all that I have seen have good points. One very simple style and that can be made by anyone is a long wedge like ladder, coming to a point at the top. It can be made of strips sawed tapering towards the top end and bolted together there, or from a straight pole ripped in two and spread at the bottom to the desired width, with an iron band or bolt at the top to prevent splitting apart. The rungs should be eighteen inches apart to prevent the shins of the pickers from being hurt by rubbing against them if they are closer. The extension ladders of various patterns with widely spread bases are excellent.

THE PLANK IDEA.

When at Hood River, Oregon, I saw and had explained a new idea in the orchard of Mr. A. S. Mason, that appealed to me as being very practical for apple and all other orchard picking. Briefly, it is the use of two step ladders or restle benches and a plank. The ladders are set into the edge of the branches several feet apart and a strong plank put from one to the other at any desired height. If branches are used instead of step ladders they need steps or slats to enable the pickers to ascend them easily and to hold the plank at any desired height. The pickers, two working together, preferably, can mount the plank and stand in among the branches, where the picking can be done with ease and safety. There is no injury to the branches from having to stand on them or leaning ladders against them. The plank is a safe place to set a basket or any other picking receptacle. By moving the plank three or four times the entire tree can be picked, except the central part, and even that can be reached from the plank by running it through the tree if the branches are not too thick. On very rough or steep ground this plan cannot be followed, but in any orchard that lies reasonably level it is entirely practical and one of the best arrangements for gathering orchard fruits that I have ever seen tested.

STORING APPLES.

One of the worst things that can be done, and the mistake is often made, is, to lay winter apples in piles on the ground and allow them to stay there for days and weeks. They will ripen far faster there than on the trees unless kept very cool. The ground is usually warm at time of picking apples and if the sun is allowed to shine on the piles more heat is absorbed, which hastens ripening and decay. The best thing to do is to make all speed in getting the apples into permanent storage. The cooler the place of storage is the better the apples will keep, down to within a degree or two of the freezing point. On the farm, where the storage is very simple and is often a cellar or some outbuilding, the doors should be kept closed by day to keep out warm air and open at night to let in that which is cool. It has been well proven that changes of temperature are bad for keeping apples and that free circulation of air is apt to induce evaporation and hasten maturity. Apples shut up in barrels or boxes, put into the coolest places available and kept so, will come out in the best condition possible. In no case should there be an hour's unnecessary delay in getting them into storage.—H. E. Van Deman.

About Chestnuts.

There have been several questions sent me lately about chestnut culture and from widely separated regions, one being from the far east and another from Iowa. There is no doubt of the natural adaptability of the chestnut to large areas of our country for the trees grow wild in great abundance in many of the eastern states, especially in the mountain sections from New England to Northern Georgia. The soil that best suits the chestnut is of a shapely character and always such as is well drained. Sandy loams are also well suited to this purpose but limestone lands are not.

The foreign species of the chestnut are larger in size of nuts but the flavor is inferior to that of our own natives, the Japanese being especially poor, but when

cooked they are quite good and are a common article of food, particularly in Southern Europe. And the foreign species are more tender in tree than our own and are sometimes injured by very severe winters where our natives are entirely safe.

The best variety that I know is called Rochester and is a chance seedling that originated among a lot that grew in a nursery at Rochester, New York, from nuts of pure American stock. The original tree was sent to a customer near North Alton, Illinois, and I saw it there growing in great luxuriance on the bluff far above the Mississippi river. It has borne well and so have younger trees propagated from it, and they all seem to be hardy enough to withstand the winter there. The nuts are much larger than the average of our American chestnuts and the flavor is excellent, being rich and sweet, with no bitter skin as the foreign chestnuts have. And the nuts ripen almost all at one time and come out of the burrs very freely.

There are many named varieties of the European and Asiatic species being grown and some of them are very large and of fair quality. The best and by far the most popular of them is the Paragon. It originated in Pennsylvania and orchards of considerable size have been planted there and many groves of wild stump sprouts have been grafted with the scions. One large grove of this kind belongs to a man named Sober and a certain nursery firm in New York has claimed that there is a difference between these trees in variety and the ordinary Paragon trees. I have been squarely asked by one inquirer if this is true and I must say in reply that I do not think there is any difference between them, although I have never been to the Sober groves to make an examina-



Here is a picture of a C. A. Green grape taken in its third year from setting and bearing its first crop of the nicest grapes that we have ever eaten. The vine starts growing ten days earlier than any other variety we have here and hung right on the side of the house all winter without any protection and never showed a sign of being frosted.—G. I. Morse.

tion, but I have seen and tested the nuts and pronounced them characteristic Paragon. Several good judges, who have visited the trees have told me there was no apparent variation in them from the parent stock from which they were grafted.

It is probable that the Rochester chestnut will succeed in Iowa and I would advise its trial there, but I doubt of the success of the Paragon there or any of the foreign kinds.

The main objections to chestnut culture are the weevil in the nuts and the foreign disease that has made havoc in the eastern states. Already the wild and cultivated chestnut trees are almost all dead or dying from this blight from New England to Southern Pennsylvania and there seems to be no means of stopping it. In the central and far western states there is no such trouble as yet and it may be well to go ahead with the planting of chestnut trees. And there are neither of the chestnut weevils there to infest the nuts, which is another point in favor of chestnut culture there.—H. E. Van Deman.

Answers to Inquiries.

About Boxed Apples.

Prof. H. E. Van Deman:—What are the dimensions of the standard apple box and the thickness and kind of lumber to use? Should the eastern orchard people pack apples in boxes and if so what kinds and grades?

Reply: There are two standard boxes that differ in shape to suit the different shapes and sizes of apples but are as near

as can be of the same content. The one that is by far the most commonly used for most packers is the only one that need be used is 10 1/2 inches deep, 11 1/2 inches wide and 18 inches long, inside measurements. The ends should be of solid stuff and never paneled veneer, for there must be something substantial to nail into and to hold the covers rigid. The sides should be of 3/8 inch stuff and in one piece, but the top and bottom of 1/4 inch stuff and of two pieces not over 5 inches wide for each, with a narrow crack between them in the middle. This makes the bend easy over the bulged pack of the apples that is needed to keep them tightly in place. The stiffer sides do not bulge and never should be allowed to do so, for the boxes are always to be laid on their sides after they are filled. Narrow cleats 3/4 by 3/8 inch are nailed across the bottom and top covers to hold them securely.

The kind of timber to use in making apple boxes must vary with the region where they are to be used. In the far west they have white spruce and some kinds of pine that are well adapted but in the eastern states this is not obtainable. Sweet gum, which grows in the south, is the most available wood and is quite suitable, being light and strong.

Only the higher grades of apples should be put in boxes, such as will attract the best customers. Grimes, Stayman, Yellow Newtown, Jonathan and that class of apples will pay to pack and send to market in boxes from any section where they flourish but not Ben Davis and the cheaper kinds. And only the first and second grades as to size and character are suitable. All culls should go into barrels for they will not pay for the expense of wrapping and packing in tiers as all boxed apples should be packed.

TOO MUCH PRUNING.

Reduces Fruitfulness in Young Trees.

Prof. H. E. Van Deman:—I have three standard fruit trees, six years old in my back lawn, one Yellow Transparent apple, and one each, Keifer and Bartlett pear, big healthy trees but they have never had a blossom on, and are all going to wood.

I cut them back well every spring, and the new shoots will grow from six to eight feet during the summer.

Would cutting them back now cause fruit buds to form, or is there any remedy for the wood habit?

Although they are in sod I keep the grass away from the trunk some 18 inches, and other trees in the same plot are bearing every year, although not the same variety of fruit.—H. D. Meek, Pa.

Reply: Just as long as these or any other trees are "cut back well every spring" they will continue making wood profusely and bear little. Apple and pear trees bear their fruit on short spurs and not on the vigorous shoots that result from excessive growth. If they are treated so that they must make rampant, thrifty shoots "from six to eight feet" long they will not set fruit buds. To cut them back now in the fall when all the growth is made would do no good, nor would it have done much good a month ago or even somewhat earlier.

The blossom buds begin to form early in the growing season and some who have made careful scientific studies of the formation claim that in some cases they are more than one year in attaining full development.

Young fruit trees should be given good care from the start and when they have reached early bearing age they should not be pruned overmuch but allowed to form their fruit buds and bear.

Keeping Autumn Apples.

Editor of Green's Fruit Grower:—Such finely flavored apples as the King, Tompkins, Duchess of Oldenburg, Wealthy, Pewaukee and English Rambo, are worthy of a more extensive season for use in the home and we have succeeded quite well in extending the season for these fine old varieties, several weeks past the usual ripening season in the open orchard.

When these varieties are colored up well, but not yet ripened, we go about the trees carefully picking into baskets the finest, soundest specimens.

We secure from our grocers a number of boxes, such as fruit jars come packed in, which are made from heavy paper and have divided partitions.

Each apple is carefully wrapped into soft paper and packed loosely into these boxes, each box labelled and stored in the open, free air on our rear porch.

Last season, we kept these apples until the holiday season and the children at school, had choice flavored fruit every day in their dinner pail until the regular winter varieties had mellowed for eating. We had more than we could use up of these choice apples and sold them to our fruit stores at \$1.50 per box and they retailed them alongside the Western apple at three for a dime.

Our fruit was all sprayed and it paid us well for our labor and expense.—Geo. W. Brown, Hancock Co., Ohio.

How Shall I Sell my Apple Crop?

Reply by C. A. Green.

Mr. J. H. Prillaman has a large apple crop on the foothills of the Blue Ridge mountains, Va. He asks, "Would you advise selling the apples in the orchard, the buyer to pick, sort, pack and deliver, or would you advise me to pick the apples myself, sort and pack them?"

C. A. Green's Reply: Here is an interesting question, but one not easily settled. If a man has a large apple orchard and is offered a profitable price by a buyer who is willing to take his chances of the fruit being blown off by the wind or struck by hail or other misfortunes, and who is willing to pick, sort, pack and haul the fruit to the nearest railroad, and pay a fairly profitable price in most cases it would seem to be wise to accept such a proposition.

In the above case the buyer is supposed to take everything that he wants in the orchard, all grades, and to do all of the work himself and take all chances of loss, paying the owner of the orchard a specified sum of money for the entire crop as it stands upon the trees.

The man who has something to sell should not expect to get for his product the highest possible price for that season. The man who does expect to get the highest price often is obliged to take the lowest price, as is indicated by the fact that when potatoes in Rochester were selling last fall and winter at \$1.50 per bushel, there were many farmers about Rochester who would not accept this price. These men probably would not have sold at any price on an advancing market. The result was that many farmers were left with the crop on their hands when the winter had passed. They were not able to sell at any price and many thousand bushels were thrown away.

It is not possible to estimate closely the amount of apples which an orchard will yield at any period of the maturity of the crop. I know of an orchard which early in the season—say in June—did not promise much of any crop. In October the fruit seemed to be scattering, but very large and of fine appearance. The actual yield of this orchard was double that estimated just before picking began. In other cases the showy yield might be far less than was estimated, therefore no one who sells his orchard in bulk should expect to make a correct estimate of the possible yield nor should he expect to get the last dollar or the last hundred dollars that his orchard may possibly be worth.

The apple orchardist should be capable of learning from his bookkeeping how much his crop of apples for a certain year has cost. He should add to this cost a reasonable profit and an allowance for years when the orchard will bear nothing. If the lump buyer offers a price that looks favorable as compared with this statement of the orchardist it may be well to close the deal without delay, without expecting or hoping that an absolutely correct estimate has been made of the value of the orchard. Whatever the result may be, the owner of the orchard had made money and should be satisfied with the results.

I am asked to prophesy as to the value or price of apples this year. When we talk about prices, we must realize that there is a vast difference in the quality of apples as grown in different localities, and often in quality as grown in the same section of the country. There are certain careful apple growers in Western New York, who can almost always sell their fruit for a much higher price than their neighbors for it is a superior quality and they are noted for careful grading and handling. The price will also be somewhat affected by the location. A less price must be expected for fruit in an isolated locality far from large cities.

I assume that you do not refer to the price for fancy fruit, for what is now termed fancy grade is grown seldom in other localities than those near the Pacific coast. I assume you refer to so-called first class apples in barrels, which means that all small, wormy or knotty apples are discarded. While I do not claim to be a prophet, it is my opinion that such first class apples as I have described, should sell this year at from \$1.50 to \$1.75 per barrel, and that possibly growers well-known for the quality of their fruit may secure \$2.00 a barrel for their crop, depending somewhat of course on the varieties grown, which I assume will be largely Baldwin, Greenings, Spy and other well-known and popular varieties.

The cost of labor, of men, horses and equipment, in grading a large crop of apples, assorting, barreling and delivering to the nearest railroad station, is a big and expensive job. When the buyer is willing to undertake this job, he should be given a reasonable opportunity to make it profitable to himself. It will cost the buyer more to do this work than will the owner of the orchard, for the buyer is away from home, while the orchardist is at home, thus his expenses will be less during the picking season than that of the buyer.

How to sell the product of the orchard is an important question. It requires skill, experience and good judgment to turn into cash the crop at a good fair profitable price. Some men seem to have a faculty of getting big prices for produce, while others seem to have no faculty whatever, and invariably accept a low price and often an unprofitable price. The difference between the two men is a difference in capacity for managing business affairs.

One reason why some buyers prefer to pick and sort the apple crop which they buy, is that they can superintend the grading and make it just what they would like to have it. It is difficult to get precisely the kind of grading done by the man who owns the fruit.

A friend of mine has recently planted a large apple orchard in the locality where our subscriber lives. This friend tells me that the foothills of the Blue Ridge mountains are favored localities for growing apples.

Picking and Packing Fruit.

The fruit consumer who lives remote from growing districts is at a disadvantage in that he can not enjoy all fruits in their perfection of ripeness and flavor, for if picked when matured, fruit will deteriorate in the few hours from its gathering to its purchase by the consumer, says Pennsylvania Farmer. The condition of fruit under normal atmospheric conditions is at all stages of development a state of constant change, increased or retarded by the presence or absence of heat. After the fruit approaches maturity, therefore, it must be an object of careful attention until the right time for gathering arrives. When the fruit has reached that state when

summer are more quickly cooled in small packages. For winter storage the apples, after being cooled and graded, are packed in double-headed barrels and stored as quickly as possible. The proper grading of the fruit usually requires its sorting into three marketable classes: the hard, sound fruit of extra size and color; the second in size, yet hard and perfect, and the marred or imperfect fruit which is yet firm enough to stand transportation, to be sold as cooking fruit. Such imperfect apples are best sold in slatted crates or half-barrel baskets.

Keeping the fruit upon the ground for several days after it is gathered from the trees does not improve its keeping qualities. A cool, dry building is the best place to hold the fruit for packing. In laying the fruit in the barrels it should be lightly handled, placing them evenly and filling the barrel full.

Pears require as careful handling as apples. Summer pears store better in open packages, while the firmer, late varieties may be packed in double-headed barrels. I would rather pack Keiffer pears in bushels boxes than barrels, however, as they are a very juicy pear when ripe, and pressure results in loss of fruit. Pears for quick sale are very conveniently handled in half-barrel baskets.

Plums and cherries are such tender fruit that they must be very quickly and carefully handled. They will not stand the pressure in a large package and carry best packed in quart or two-quart baskets arranged in tiers in a carrier.

Peaches are ready for the harvest when full grown, well rounded and highly colored over two-thirds of the fruit at least. The degree of coloring varies somewhat with location and climate, as well as

In recent years it has been widely circulated, and now is planted in all parts of the continent where dessert apples flourish. In 1893 the old tree was partly injured by fire, but continued to bear on one side until 1908, when it failed forever. On the old McIntosh homestead, due honor is being done to it and to its discoverer in the unveiling of a monument. The occasion is a deserving tribute to both.

"Health Officers" in the Swamps.

In Florida and the southern parts of Georgia and Alabama, there are flocks and flocks of turkey buzzards which have become so tame that they frequently swoop down upon the main streets of a town and perch on the ridge poles of the main buildings.

"Aren't they wild birds?" I asked in surprise.

"Yes and no," was the reply. "They have never been tamed and would not stand confinement, but they seem to know that they are protected by law, and act accordingly. There is a twenty-dollar fine for killing one, and it is rigidly enforced. You see they are invaluable as scavengers, eating up dead animals, snakes and garbage that would soon cause sickness, especially in the swamp lands where man's work is difficult if not impossible along this line. So these birds are called 'health officers' in the South, and are regarded as public benefactors."

—Our Dumb Animals.

Recreation on the Farm.

Farm people need recreation, even though the popular opinion is that they do not. Boys do not leave the farm because they want to escape hard work, for they are equal to that; but because there is nothing but hard work and no fun, says Denver Field and Farm. Farm life is strenuous now; there are few workers larger responsibilities and more skill is required. All this exhausts energy, which must be restored by recreation. It is worth while for the church to concern itself in the play of its people. Many who come to play will remain to pray. It is easy to get a boy—even a bad boy—into an athletic club and make that a means of getting him into Christian life. How many preachers even preach on play? Yet it is one of the most important subjects.

Eight Hour for the Farm.

Evidently the Creator intended to put a lot of checks on us to hold us in leash, as it were, to keep us from ruining ourselves before the time, says Denver Field and Farm. He requires that we rest one day in seven; that we sleep about one-third of the time. If we do not, we pay the penalty. He evidently has put a limitation on our hours of work. The experience of man has shown that ten hours is the outside limit in which a man can work efficiently. If we lengthen it out to twelve hours, we get no more work done than if we work but ten and it is an open question whether the work is not done more efficiently in eight hours instead of ten. The farmer who is boss of his own affairs insists that he shall work twelve, fourteen and some of them even fifteen hours a day.

Economy is in itself a source of great revenue.—Seneca.

RIGHT HOME.

Doctor Recommends Postum From Personal Test.

No one is better able to realize the injurious action of *caffeine*—the drug in coffee—on the heart, than the doctor. Tea is just as harmful as coffee because it, too, contains the drug *caffeine*.

When the doctor himself has been relieved by simply leaving off coffee and using Postum, he can refer with full conviction to his own case.

A Mo. physician prescribes Postum for many of his patients because he was benefited by it. He says:

"I wish to add my testimony in regard to that excellent preparation—Postum. I have had functional or nervous heart trouble for over 15 years, and a part of the time was unable to attend to my business."

"I was a moderate user of coffee and did not think drinking it hurt me. But on stopping it and using Postum instead, my heart has got all right, and I ascribe it to the change from coffee to Postum."

"I am prescribing it now in cases of sickness, especially when coffee does not agree, or affects the heart, nerves or stomach."

"When made right it has a much better flavour than coffee, and is a vital sustainer of the system. I shall continue to recommend it to our people and I have my own case to refer to." Name given by Postum Co., Battle Creek, Mich. Read the little book, "The Road to Wellville," in pkgs. "There's a reason."

Ever read the above letter? A new one appears from time to time. They are genuine, true, and full of human interest.



This is part of our flock of wild geese or Canadian geese domesticated which we find useful as well as ornamental in as much as they rapidly devour fallen or wormy apples. Unlike the common geese they do not gild the smaller trees. Hops will rub against the tree and bruise the bark so the tree finally dies but our flock of 60 some Canadian geese are surely a help keeping the grass in orchard like a lawn.—Dr. C. H. Wilson, Sunbury, Ohio.

the chemical changes within it have advanced so that they will be completed in due time without the aid of tree, vine, or even sunlight, the time for gathering has come. This process of completion varies in length of time with the different kinds of fruit, as well as with their varieties. For instance, Bartlett pears taken from the tree when full grown but yet hard and a yellowish-green will ripen to a delicious flavor if kept in a dark, moderately warm place for several days, and are generally superior in flavor to those left to ripen upon the loaded tree. Apples possess this characteristic in varying degrees and to a greater extent than any of our northern fruits. Peaches, plums and grapes mature very rapidly, and must be hurried to the consumer if they are to reach him in a sound condition.

To insure its ultimate ripening with the best flavor, any fruit must have reached its full development as to size and natural color. It is an established fact that such fruit does not decay as readily as that which is immature as regards size and color. For storage purposes good color is, therefore, a necessary characteristic, provided the fruit is perfectly hard. The appearance of the fruit, as well as its quality, are essential for a ready sale at good prices, and this depends upon care in picking, packing, grading and in the appearance of the package itself.

In gathering fruit the most uniform harvest results from picking the earliest matured fruit first, which insures the successful maturing of the remainder. Small pails or baskets which the pickers can conveniently hold are best for gathering the fruit. Shaken apples are a sad waste of fruit, as they will not keep long, showing bruises in two or three days. Summer apples, if carefully handled, may be sold for brief storage for a few weeks until glutted markets have cleared.

In hand picking apples, the fruit should be grasped firmly but gently and with a slight turn of the wrist loosened from the tree.

Apples for storage should be quickly cooled. Those picked during the heat of

with the variety. Peaches must be very lightly handled. Pinching means a darkening of the flesh beneath the skin and decay in a few hours. If they can be graded directly from the tree by picking into two or three receptacles at one time, so much the better, as it means less handling and danger from bruises. The fruit is packed for shipment in a box, basket or crate holding about half a bushel (for long shipment, preferably the box). Those for storage must be taken at once to a cool place. Others should be shipped at once to market to avoid loss.

Fruit should not be gathered while wet, since it will spoil much more quickly.

Grapes may be gathered direct from the vines and packed in the market packages, or they may be gathered in baskets and carried to cooler buildings, where the final packing is done. The package which is generally used for grapes is a slatted carrier or crate, holding eight or more three or five-pound baskets. The clusters are laid lightly in the baskets, with the stems down, after all decayed berries have been removed with a small pair of scissors.

Honoring an Apple.

An interesting ceremony occurred near Morrisburg, Ontario, June 8. A monument was unveiled to an apple tree. The farmers of Dundas Co., Ont., raised the money by popular subscription and placed a marble stone close to the spot where the original McIntosh Red apple tree grew. The old tree stood for over a century and then fell. The Toronto Daily Mail gives the following bit of history:

About 115 years ago Mr. John McIntosh, who came to Canada with the United States Loyalists, and settled in Matilda Township, found a number of young apple trees while clearing a place for a home. These he preserved. One of them produced fruit of such superior color and quality that he named it McIntosh Red. It bore an abundance of fruit and soon attracted the attention of men who could appreciate its worth and possibilities. His son Allan propagated from it, and commenced to disseminate the variety.



New York Grape Crop Large.

The "Fruit Trade Journal" of New York quotes W. N. Wise, a long-experienced buyer and shipper of grapes in the Keuka district there, as saying that in the central New York district, comprising the territory surrounding Keuka, Canandaigua and Seneca lakes, the reports indicate that grapes will be of a superior quality and that the yield of Catawbas and Concord will be from 25 to 35 per cent. greater than last season. Delawares and Niagaras are said to be a light crop. Figuring the crop of 1911 at 75 per cent., Mr. Wise estimates the yield of 1912 at 100 per cent. or a full crop.

Some of the dealers in the Hudson River district estimate the yield there as considerably larger than in 1911, and think it will reach 125 per cent. as against 75 per cent. last year. In the Brocton or Chautauqua district, which is by far the largest vineyard section, and from which the output is nearly all Concord, growers and shippers say that they expect to have from 60 to 70 per cent. of last year's crop. The crop last year in that locality was heavy—25 per cent. larger than normal. If this estimate is correct, they will have, therefore, about a full crop this year.

From the Michigan districts come much the same reports. Last year's crop was by far the largest that district ever had, and some now estimate that there will be a 75 per cent. crop, as compared with last year. Mr. Wise is inclined to put the yield as not over 60 per cent. of last year's crop, which would still leave a 100 per cent. crop for this year.

Liming the Soil.

By C. A. Green.

When I was a boy on the farm no one would have thought of applying lime to the soil, or in fact any commercial fertilizer. The average soil of Western New York was full of native fertility enhanced by the burning of timber, which was so plentiful it could not be made use of in any other way except to turn it into ashes.

Of late years we hear more of soil being benefited by the application of lime. It is found that some soils are helped more than others. Low lands that are inclined to be wet and sour are helped most as lime lessens the acidity of the soil. As strawberry plants like acid soil, lime should not be applied where strawberries are to be planted.

I consider lime more helpful to clayey soil than to sandy, but sandy soils are said to be improved by a moderate application of lime. In many fertile fields there are patches of stiff hard clay that plows up in lumps, whereas the larger portion of the field plows up crumbly and is easily prepared for a crop. If lime is applied freely, say at the rate of one thousand pounds per acre, on these hard clayey spots, the tendency will be to loosen those spots and make them conform more with the crumbly condition of the balance of the field, which is highly desirable.

At Green's Fruit Farm there is a field low down near the swamp, which is quite clayey and inclined to be wet and sour, which we have left in sod for the reason that we could not grow anything else there but grass. For many years we secured from this low sod land very light crops of hay and a poor quality at that. Recently my foreman used Thomas phosphate, sometimes called basic slag, at the rate of three hundred pounds per acre, and now he is cutting each year one of the biggest hay crops in our locality. This Thomas phosphate is largely composed of lime, and our foreman thinks that the lime has been helpful on this particular field, but the other constituents of the Thomas phosphate were undoubtedly helpful. I have instructed our foreman to make freer use of lime on our clayey farms, but have not urged it so much on our sandy land.

How the Poor Might Get Fruit Cheaper.

Sir: Too much fruit has never been grown in this country. Where there has seemed to be a surplus of fruit, the apparent surplus has been due to a lack of distribution. Yesterday as I was inspecting a specimen orchard at Green's fruit farm and saw the ground completely covered with beautiful, large, juicy apples, the windfalls which were going to waste, I said to myself: "What a pity these apples cannot be gathered and sold to the working people of the cities or to anyone who desires them!"

"Are these apples marketable?" I asked of my foreman.

"No," he replied, "we do not consider them worth marketing. It would cost at least 15 cents a bushel to prepare and take them to market. The grocers and their large buyers will not purchase second-class apples. If sold they would have to be sold directly from our wagons to the consumer. Rochester, like most other cities, will not allow the farmer to peddle or sell on the street direct to the consumer, so you see there is nothing left for us to do but allow this fine fruit to go to waste."

Do not think that there was not plenty of fine fruit left upon the trees where there was so much good fruit lying under them. The trees were loaded down with the finest apples.

Consider the waste of fruit in hundreds of thousands of orchards in New York state during this late summer or early fall. Some of the fruit has ripened earlier than the rest on the same tree and winds have blown it to the ground. Many farmers or

A New Danger in Plowing.

I delight in guiding the plow as it cuts the green turf and turns the furrow with seeming ease. As a boy on the farm I have plowed many large fields, fitting them for grain, vegetables and fruit.

When the spring opens and the warmth of the sun begins to be felt, when the buds in the woodlands begin to open and the birds have come back from the south and are getting ready to build their nests, I know of no labor more poetic than plowing. It has been my custom when holding the plow handles to whistle away the hours between morning and noon, and during the long afternoons, and to watch the covies of birds that follow in the wake of the plow, picking up worms, grubs and other insects, and to catch glimpses of the ever-changing clouds, the flight of the hawk overhead, and the scurrying of the woodchuck, alarmed while he is nipping the tender shoots near the bordering stone wall or thicket.

The work of the plow is something marvelous. There was a time when man fitted the soil for crops with a dull tool resembling a pickaxe. The plow in one day will do more work than a thousand men could have done with such a crude instrument by hand. The plow each day turns over and loosens thousands of tons of earth. One danger of plowing comes when the plow strikes a rock firmly imbedded in the soil. This concussion thrusts the plow handles upward and sometimes they strike the plowman in the chest. Men have lost their lives by these accidents of the plow handles.

A new menace has come to a plowman recently. While having no reason to an-

trees, it is difficult to reach the cherries of the topmost branches or of the ends of the widespread branches with safety to the picker. Here is evidence of the desirability of training the cherry as well as other fruit trees with low branches so that there will be less danger and less difficulty in gathering the fruit. There is no good reason why the branches of the cherry tree should not be low down, almost touching the ground. In order to accomplish this end, the low branching should be encouraged and the top shoots should be cut back each year while the tree is young.

The Increasing Use of Commercial Fertilizers.

I am continually urging the foreman of Green's Fruit Farm to spend more money for stable manure and commercial fertilizers. I tell the superintendent that it costs but little more to harvest a good crop of hay, of grain or of fruit, where there is a heavy crop such as may usually be secured by an investment of from \$5.00 to \$10.00 per acre. Farmers are sometimes asking how best they can invest their money and where they can find a safe place for investing it where they will not stand a chance to lose the principal. My opinion is that there is no better investment a farmer can make than such investments as may be necessary to enrich the farm and bring it up to a high state of fertility. It is surprising that so many farmers should be at the expense of plowing, harrowing and fitting land for a seed bed and then when harvest time comes find they have only half a crop or less, whereas they might have had a full crop by the investment of five dollars more per acre for a good reliable fertilizer.

But some will reply that they do not feel they can depend upon the companies who make fertilizers, and that they are liable to be defrauded by getting less value in the fertilizers than they paid for. In the past it is true there have been many frauds committed by manufacturers of farm fertilizers, but at the present day these factories have been so closely watched and the reputations of the manufacturers are so valuable, that if you buy fertilizers of an established firm you are likely to get what you paid for and the names of the reliable fertilizer companies are well known throughout the country.

Surely every producer is looking out for his own interest, but when he decides to double the yield of his crops by more thorough cultivation and fertilizing, he is not only helping himself but he is helping to feed the masses, the laborers of the great cities, the men who are digging coal deep down in the bowels of the earth, the men who are mining copper, gold and silver many hundred feet below the surface of the earth in the western states, the sailor and the explorer. Green's Fruit Grower intends to keep pushing its slogan, which is "Double the yield of our crops of grain and fruit."

Planting Cuttings.

Green's Fruit Grower: I have taken your paper now about 14 years and never bothered you with any questions before but want to now.

Will you please tell me if the right way to raise currant plants is to cut cuttings in the fall after frost and put in the ground the next spring?

Enclosed find stamped envelope for reply. Thanking you in advance. I remain.—Harry W. Pierce, Colo.

C. A. Green's Reply: At Green's fruit farm we cut off the wood of this season's growth from currant bushes as soon as the leaves begin to fall in August or September. We cut these shoots into cuttings eight or nine inches long and tie them in bundles of 25 and bury them in moist sand. We plant these cuttings the entire length, leaving simply the top of the cutting to clear the surface of the ground, making the earth very firm about the base of the cuttings. An experienced propagator should have no difficulty in making these cuttings grow but a novice often fails. If planted in the fall, the cuttings must be covered with straw litter or stable manure. If planted in the spring there will be no danger of their heaving, therefore possibly spring planting would be the safest for you.

An Influence.

"Your honor," said the attorney, "this man's insanity takes the form of a belief that everyone wants to rob him. He won't allow even me, his attorney, to approach him."

"Maybe he's not crazy, after all," murmured the court in a judicial whisper.

Unscientific Management.

In the current issue of Farm and Fireside appears the following:

"One farmer was travelling two thousand miles in a lifetime to feed his stock. When he found it out, he moved his barn. How far is it from your house to your barn?"



The orchard, home and silo of Joseph L. Gammon of Canton, Maine. Here is an indication that not all of the thrifty and prosperous young farmers have left the eastern states. Where you find a good comfortable house in good repair, a large and productive orchard and silo, and good barns kept in fine condition, you may be certain that there is an energetic man behind all of these enterprises and improvements. The silo will give you an idea how one can be economically constructed, but a far more enduring one can be made of cement blocks, but these also should be reinforced by iron bands. Fourteen of these apple trees yielded 46 barrels of fine apples.

orchardists are so busy they cannot afford the time to prepare this second-class fruit for the market or the teams to draw it to market. The evaporators and cider mills may not yet be running; therefore, the result is millions of bushels of fruit going to waste that might be turned into ready money if it could be economically distributed. There is no doubt that there are hundreds of thousands of families who would be glad to have this fruit and to pay a modest price for it if they could get it.

This statement, which I have made about apples, applies to plums, cherries, peaches and most other fruits.

One difficulty is that most city officials feel like standing by or protecting the grocers. This is shown by the farmers' being ruled out of our streets and compelled to sell only, or most often, to grocers or shippers. The moment the officials of the cities encourage farmers to peddle their fruits without licenses to the residents of the cities the cost of living will be reduced, and much that now goes to waste will be marketed.

Another plan of distribution would be to locate in every city, in four different accessible sections, so as to supply the entire city, four public markets, where citizens could buy various farm products without recourse to middlemen, thus saving one profit. At present these distributing centers are entirely lacking, owing to the fact that it is feared competition will injure the retail grocers.

In Rochester we have what is known as a public market at the furthest corner of the city, accessible only to a few of our citizens. The result is that the Rochester Public Market is simply a place where the producer may sell his product to the grocer, not direct to the average consumer.

anticipate danger, the plow struck a package of dynamite that had been buried in the soil. The dynamite exploded, killing the team, smashing the plow and disabling the plowman. It is assumed that someone stole this dynamite, and knowing of no safer method of hiding it, buried it in the field. Dynamite is of great service to the farmer in removing stumps and rocks, but thus far it has not proved an aid to the plowman.

Cherry Tree Accidents.

The picking of fruit is a delightful pastime providing one can stop work when weary. Can you imagine pleasanter work than picking the delightful strawberry, grape, blackberry, raspberry, pear, plum, peach and apple? From childhood up I have gloried in picking cherries. Cherries are beautiful to look upon and tempting. A cherry tree, the branches of which extend over the roadway leading into my home grounds, is each year denuded of cherries so far as they can be reached from this roadway. Every grocery boy or express messenger and almost every visitor stops his wagon or automobile when he arrives at this cherry tree and reaches up to pull down a branch and pick a few handfuls of ripe cherries.

But there is danger in the cherry tree. Every season I hear of cherry pickers falling from cherry trees and breaking arms, legs or necks, or cracking their skulls. The reason for this is that the wood of the cherry tree is more brittle than that of the apple, pear or peach. There are liable to be dead branches on the cherry tree and these dead branches are easily broken. No one should attempt to support his body or his ladder upon a dead cherry branch.

When cherry trees are allowed to grow high in the air, as are most all of the older

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ALL ABOUT TWO DAYS FISHING

Or What Happened the Boy.

By C. A. Green.

A boy sat on the bank of the creek near his home fishing.

He was imaginative. Through his imagination he saw the rippling sunlit water before him well stocked with fish. Though he had been holding his rod for an hour without a bite he was confident of success before the day was done. Imaginary fish of various kinds were moving up stream, shooting through the rapids or floating lazily through the deep waters towards the place where he sat waiting.

He has a bite. Without giving the fish time to get the hook and bait well into his mouth the boy jerks up his pole and line and the fish is lost. Not at all discouraged the line and hook are again cast into the stream while the cork which supports the line rests lazily on the water. Again he has a bite but this time his attention is attracted to a woodchuck who has made his appearance at the mouth of a hole across the stream and he does not see the slight bobbing of the cork which indicates the presence of a fish at the farther end of the line. It is not until the cork has almost disappeared that the tug is felt on the pole announcing that the boy has hooked a fish. Then with one mighty sweep he pulls strongly on his pole and lands far up on the bank above a large red finned mullet.

What a delirium of enthusiasm over this event. The boy is for the moment living over again the lives of his forefathers, the lives of primitive man whose joy was great over the catching of fish and other game for the reason that if no game was secured starvation must ensue.

Hurriedly a new worm is placed on the hook, not scientifically, but bunglingly, after the way of boys, and hastily the hook, line and cork are again thrown into the old fishing hole there to rest long without agitation until further indication of a bite.

Then the boy fell to dreaming, for he was a dreamer, having in him such stuff as make poets. What will the boy do when he is a man? He is tired of the monotony of the farm home, of the eternal quacking of the ducks, of the squealing of the hungry pigs waiting to be fed, of the mooing of the cow in the barnyard or her calf, of the crowing of the rooster, of the bleating of the sheep. He longs for a change and yet he enjoys the hunting, the fishing and the freedom of country life.

He decides that when he is a man he will marry the bright eyed, red cheeked girl of the village below who is less than five feet tall while he is likely to be over six feet if he keeps on growing. Then meanwhile he will astonish the world with his poems. In imagination he sees an elegantly bound book lying before him on the front page of which appears his portrait showing a few stray locks of hair hanging over his high forehead. In imagination he sees in the years to come travelers visiting his farm home simply for the reason that it was once the home of the poet and the philosopher.

The boy's dream is cut short by a tug at the pole and in a moment a rock bass is pulled out of the water and is lying beside the red finned mullet and again the line and cork are thrown into the stream.

FIFTY YEARS LATER.

Fifty years have passed and a man with white hair is seated on the same bank by the same stream fishing. He is the same individual who sat there as a boy fifty years before. This old man has seen much of life in the past fifty years. He has been cuffed and battered by a hard and cruel world, and yet has secured much of pleasure from life and is ready to vote that life is worth living. He hears young men saying that it is only in youth that life can be enjoyed but in his opinion all of life is enjoyable if we live the right life.

The aged man is holding a fishing rod unlike the rod that the boy held fifty years ago. It is made of split bamboo with an automatic reel and a silk line. The bait is artfully applied to the hook for he is an expert fisherman. He has fished for trout in the wilds of McKeon, and in Potter county, Pa., in the Adirondacks, Canada and elsewhere. He has fished for bass, pickerel and muskellunge in the St. Lawrence river and for the tarpon around the island of Catalina, California. He has not come to this spot for the purpose of fishing. He does not believe there are many fish left in the stream at this late date. The stream has changed much during the past fifty years. In old times the water was pure and sparkling as the dew, but now the drainage of the growing villages above have discolored the stream. But he drops his hook into the water and thinks of the past and of the future. Alas for the dreams of youth, how seldom do they come true. He did not marry the village belle who sang so sweetly as he had expected. He had not found his portrait emblazoned on the front page of a volume of poems. He had not astonished the world with his marvelous talent. He had not overturned the world of thought as he had anticipated. He had however

achieved moderate success in the enterprises with which he had grappled with all the force of his personality.

How natural it is for each man to consider that the particular work in which he has devoted his life is of greater importance than the work of other men. The lawyer, the doctor, the clergyman, the inventor magnify the importance of their work or profession. The clergyman or the college teacher cannot be made to believe that the honest and successful work of a farmer or fruit grower or of the editor of a farm or horticultural magazine can result in as much good as preaching or teaching, but all must concede that every honest worker is in a sense a teacher and a helper. Which profession, which line of labor may yield the best results none can tell with assurance.

"Whither have the last fifty years fled?" asks the aged man as he casts again his baited hook into the murky waters. "It seems but a few brief months since I sat in this same spot, a child on the threshold of life. How brief is life. How soon comes that journey from which no traveler returns to reveal the secrets of the hidden world."

Growing Straight.

Written for Green's Fruit Grower by Mrs. Hackett, Wis.

Home is a whole body made up of the composite parts, father, mother and the children, the surroundings and the use that is made of them, of the different people and their ideas each with their different tastes to be considered. Each person has different work, yet each work helps the other making up the whole, the ideas and wants of the older people are often considered, yet sometimes in the rush of living, we forget many little things that the children should know, very often we see a lot of children, well fed, well dressed, well behaved, yet without an idea of the outside world except those learned from their companions at school, and the people of the neighborhood, and some of these ideas that the children have are wonderfully strange when you find them out.

When you set out a tree do you leave it without protection, to wave with every wind that blows? No indeed, you give it a support so that it may grow straight and strong and upright. You are seeing that the children are growing straight and strong physically, but what of their minds? Are you giving them a chance for development? Are you seeing that they have good reading, broad minded papers and books to read, or do they borrow here and there of the neighbors the cheap flashy grades of reading? If they do you had better put up a prop at once or your child's mind will grow crooked, and it will influence his whole life.

Do they ever go away from home? How far, and how much do the girls and boys know of travelling, and the dangers along the way. What of their conduct among strangers, do they know of quietness, of courtesy and the little marks of good sense, that are expected of the customs of public places, getting of tickets and exchanges, and looking out for strangers. Do they know of these things? It is not the little children so much as the older ones to whom these questions are important, but there is a time to learn them all and father and mother should know that they are taught.

Of the little folks, have they ever learned to play? Now you laugh, but there are many children who grow old before their time, and never know how to drop the work and worry because they have not learned how. Recreation is very necessary, because there is always the work to be done when they are older, and the ability to drop it is sometimes worth a great deal to any one, so they should learn of different forms of recreation, both physical and mental, interests in books, stamps, plants, gardening, flowers, there are many things and every child has some bent that should be encouraged.

Watch your children, provide good reading, let the boys get interested in politics and the girls too, and let their minds grow, see that they are interested in something and let them learn to tell about it, if it is the corn contests all right, take an interest in their ideas, and teach them of the world, and its ways, ignorance is not innocence, and those children will grow to face many things that you perhaps never needed to know.

The years soon go by, and from a little tree, waved, bent or broken, the sapling grows to stand alone, straight and strong, and upright, so should it be with the children, straight and strong and upright, able to stand alone physically, mentally and morally, you can let them go out from home to face the world, the props that you have used in their growth will make a difference to them; and to you, and you will not be sorry that you took some

valuable time, and experience as well as expense to help them in their growth.

The world is full of people who lose half of the value of life because they never get really interested in anything or anybody, life is short and we would wager that many of our readers need to get acquainted with their children, to get interested in them personally, and to let them know it, one of the things that we often look back upon when the children are grown and gone, is the many little things, that we have missed, not from lack of love or knowledge but simply from carelessness and letting the days go by.

"Silk" O'Loughlin to Get Big Returns from Fruit Farm.

Not a dozen miles from Medina and along the shores of Lake Ontario is a fruit farm, the property of the great and only Francis (Silk) O'Loughlin, American league umpire. Among the fruits raised on the farm are cherries, peaches and apples. The cherry crop on the O'Loughlin farm is about harvested. According to a friend of the umpire, there was mailed to O'Loughlin yesterday a statement showing that the cherry crop on the O'Loughlin farm will net O'Loughlin a trifle better than \$1,800. This friend says that O'Loughlin will profit more by his fruit farm this year than he will in baseball, though baseball receives practically all of "Silk's" attention.

O'Loughlin purchased the fruit farm last fall to be prepared for the day when he will no longer care to go behind the plate as an umpire. At the present time he gives a care-taker half interest.

Note by C. A. Green: While the above statement is not clearly specific, it seems to answer in part many of the questions Green's Fruit Grower receives, asking what share of the fruit of a farm the man who manages it and pays for all labor and all the farm expenses should receive. The above indicates that the noted baseball umpire, who has bought a good farm near Rochester, N. Y., allows the man who manages his farm, and I assume who pays all expenses of running the farm, including labor and packages for the fruit, one-half of all the produce for his own services and expenses.

I know of another instance near Rochester, where a man of large experience who has been eminently successful in managing fruit farms, was given the management of a thrifty and productive fifty acre apple orchard and was allowed one-half of the crop in payment for his own services and for the expenses of running the farm, for fruit packages, picking, packing, etc.

GREAT FRUIT CROP RIPENS. Kearns's Estimate.

As soon as the peaches are ripe, Mr. Kearns said, three fruit trains will be placed in service. Their schedules have been made out and when Crawford and Elbertas are ready for the market, which will be the last of the month, these trains will begin running. Mr. Kearns estimates that there will be a larger crop than last year. "The crop," he said, "will be exceedingly large and in all kinds of fruit. Apples and peaches are beyond anything we have ever had and in spite of expectations there will be a good pear crop. A while ago we thought there would be scarcely any pears, but now it looks differently. What will lighten our task in handling the peach crop is the fact that while the fall apple crop is a big one early apples were light."

"Several days ago I was at the orchard of Mr. Shafer at Gasport. He has 70 acres of apples and there was not a tree on the place that was not so weighted that its limbs did not have to be propped up, and he defied me to find a single apple there with a worm hole in it." In the Falls road district, distributed through the Rochester station, Mr. Kearns estimates there are 21,053 acres devoted to fruit culture and that an additional acreage of 25,007 will come into bearing within five years. In the Ontario division territory, Wayne and Oswego counties, the large apple centers of the eastern part of the Western New York belt, are 67,100 acres in bearing and 54,200 additional acres to come into bearing within five years. With improved methods of horticulture becoming more generally adopted he believes the annual yield an acre will be materially increased.

An idea of the quantity of peaches alone which comes out of this great fruit growing section, whose products pass through Rochester, may be gained when by multiplying the number of carloads of last year sent to market on the Central, 2,651, by 1,000, the number of 15-pound baskets of peaches placed in each car, is shown to have been 2,651,000. Carrying the computation farther, the number of pounds of peaches shipped through Rochester last year was 39,765,000 pounds.

Make your dwelling tasteful and attractive both within and without. The associations of the homes of our early days have a strong influence on the future life.

Scientific Management of the Orchard —Harvesting and Marketing.

Written for Green's Fruit Grower by Geo. H. West, Colorado Springs, Colo.

Our Winesap and Missouri Pippin trees overbore in 1910 and as we did not thinning many were undersized and on account of poor spraying also our culls ran 18.3 per cent. This year we made a beginning at thinning these varieties at a cost of 3.5 cents per tree enough to assure us of the great value of this work. One Winesap tree that bore twenty field boxes in 1910 we thinned this year twice. It was apparently no more heavily loaded but yielded thirty-six boxes the apples being larger. We had two hail storms that greatly increased our culls but good spraying and the thinning reduced our culls this year to 10.9 per cent. We do not live at the orchards and all labor and teams are hired.

In 1909 it cost us 44 cents a box for boxes, harvesting and marketing our sixteen cars of apples. It cost us 43.5 cents per box in 1910 for our eighteen carloads but we had begun to see things. There was no harmonious working together of our picking, sorting and packing. The sorters at times had to pick and again the packers were short of apples and were sorting and it was all costing too much. We found our pickers were only averaging about forty field boxes per day and our best packing any day was about eighty boxes per man. We made no figures on the sorting—only knew it was too slow and expensive. Our cull apples were costing about twenty cents per box to pick, haul from the orchard, sort and sell and were not as a whole selling for any more than that. It likely costs us twenty cents per box also to raise them. Now we come to the harvest, that season when our apple crop, a perishable one, is made and we must crowd into a few weeks time perhaps double the expense of all the year so far with a great detail of work, all of which should be well done with proper economy and yet must be rushed to escape freezing weather.

REDUCING LABOR BILLS.

There are three ways of reducing your labor bills, first, by reducing the price paid for labor and teams, but how about his side with the higher cost of living? Is he encouraged, or does he then give you as much work or less? Second, you can maintain wages and try speeding up your forces and letting the slower ones go but this is not always practical in remote localities where labor is scarce and most of your help is local. You cannot well fire a neighbor when you need him quick in an emergency later on. Third, there is the contract, piece work, or per box systems where it can be safely used, which give the worker extra pay for special speed and skill and so puts each worker on a basis of actual and individual merit. We have not found however that we can safely contract either our pruning or spraying—every tree differing from another and each requiring its special and thorough treatment. Now this is what we did do: Our box shooks were hauled two miles from the railroad to the orchard at \$1.50 per thousand and a material saving. Our box material cost less than in 1910.

We used six-penny nails in making our boxes—a mistake—after this we will use six-penny for the tops and five-penny for the rest. A keg of six-penny nails will make 600 boxes but there is some waste in using all material. We contracted our box making at one cent each and our man averaged 300 per day. We paid our pressman \$2.00 per day, will contract that hereafter. It cost too much.

We used the Barch canvas picking sacks and male help in the apple picking for which we paid four cents per box using our apple boxes and filling them not quite full so they could be piled in tiers at the packing tent where they were covered with canvas. Allowing for culls and the extra apples required it took six to seven field boxes, perhaps six and one-half average, to make five packed boxes. We had separate foremen for picking, sorting and packing, all exacting careful and proper work. In picking we use two men to a tree, both picking from the ground, then one picked the top and the other the ground. At the next tree they reversed and the ground man did the ladder work. In 1910 we paid \$2 per day and our pickers averaged forty field boxes per day. This year they averaged sixty boxes the second day and after that seventy or more. One man picked 110 boxes one day another 100, and the last on-half day twenty-two men picked 926 boxes one man picking 67. My neighbors paid \$1.75 per day for picking. It required much care in this speed work to see that they did not pull the fruit spurs that they laid the apples in the sacks and did not drop them in, that they held their filled sack at the bottom of the box and let the apples roll out, and that they filled their boxes full. All sorting and packing was done at the home orchard, there being a light crop on the smaller orchard. This increased the cost of the field hauling but it all cost too much and will hereafter be contracted.

TWO GRADES OF FRUIT.

We pack but two grades, fancy and choice, the fancy usually running about two-thirds. We used two canvas top sorting and packing tables sixteen feet long having a five foot space at each end for fancy and six feet in the center for choice, the sorters being on one side of the table and the packers on the other. Our sorters were women. For eight days we paid \$1.75 per day. The apples accumulated from the pickers and we were not keeping the packers busy enough. The sorters averaged about seventy field boxes per day. We changed by agreement with the sorters and paid them two cents per box. It worked like a charm. They soon averaged over 100 field boxes per day, one woman sorting 135 boxes each of the last two days. In 1910 we had double the number of sorters we had packing. Under this revised plan we used six to seven sorters and five packers and averaged to pack a carload a day, making 560 boxes one day. At times the tables were too full of apples when a sorter would pack for a time. This sorting required very close watching both sorter and packer, foremen going over both tables constantly one on each side. The sorters found they could use both hands and could see two apples at once. Two cents per field box is a fair price for sorting, but we can reduce the cost in two ways. Hereafter we will screen or grade out all apples under two and one-quarter inches by machinery and will not sort from the boxes, but have a box of apples poured out on the canvas before the sorter so every apple can be better seen. We have our tables already planned for this and a short trial made, assured us of its success.

We contracted our packing of fancy at four cents per box making the diagonal pack. Choice we packed double face and jumble paying three cents per box. Our packers averaged about 100 boxes per day.

A summary of the entire cost of boxes, harvesting, sorting, packing and marketing per box is thus:

Boxes, each, f.o.b., our station	.1075
Hauling shooks to orchard	.0015
Making boxes, each	.0100
Nails in each box	.0054
Pressman nailing on covers	.0054
Paper for lining boxes	.0035
Picking apples, per box	.0587
Hauling apples from orchard to packing tent	.0180
Sorting and grading, per box	.0320
Packing, per box	.0430
Hauling and loading on cars	.0100
Car stripping and bracing material, per box or per car \$2.87	.0055
Labor stripping and bracing cars, per box or per car \$1.60	.0030
Other general expenses, per box	.0480

Total cost per box

.3515

Fifty pounds of culls were also counted as a box in figuring cost of picking, orchard hauling, sorting and general expenses. The general expenses cover salary of manager and foremen, their board and railway travel, repairs to outfit, all freight except on boxes, express, 'phones, telegrams, night watchman, spring water for employees, oyster supper to them at the end of the campaign and all expenses not above enumerated.

Referring now to this harvesting we see a certain gain in several ways: First, we have secured harmony in all the lines of the work so it goes along under the per box system like a well-oiled machine and with push, life and enthusiasm. Second, we have secured intelligent honest speed in our work and by having it done in fewer days have a very certain added profit in the better coloring and increased growth of our apples and in securing all before freezing weather. Third, we have been fair to our employees for while we have profited they have earned more per day than ever before. They are enthusiastic, contented and eager for another campaign. A few could not make wages and dropped out but others were ready to fill their places. Fourth, we saved about eight and one-half cents per box over the previous two years expenses, fully twenty per cent. or over \$725 in the thirty days campaign. Fifth, we have paid too much for some work, but we have found in several lines the average capacity of good workers. Another year we can still permit them to earn above ordinary wages with a further reduction in our expenses we think. (Continued in November issue.)

Stable Manure Lacks Phosphorus.

On account of the relatively high percentage of nitrogen and potash in stable manure it is wise to add phosphoric acid to it in order that it may be a more nearly balanced fertilizer. It is a good practice to use acid phosphate in the gutters of the stable, as this will absorb the odors and may fix any ammonia that is present. It has not been shown, however, that mixing the fertilizer with manure affords any other advantage over applying it separately.

He who has health has hope; and he who has hope has everything.—Arabian Proverb.



Your Telephone Horizon

The horizon of vision, the circle which bounds our sight, has not changed.

It is best observed at sea. Though the ships of today are larger than the ships of fifty years ago, you cannot see them until they come up over the edge of the world, fifteen or twenty miles away.

A generation ago the horizon of speech was very limited. When your grandfather was a young man, his voice could be heard on a still day for perhaps a mile. Even though he used a speaking trumpet, he could not be heard nearly so far as he could be seen.

Today all this has been changed. The telephone has vastly extended the horizon of speech.

Talking two thousand miles is an everyday occurrence, while in order to see this distance, you would need to mount your telescope on a platform approximately 560 miles high.

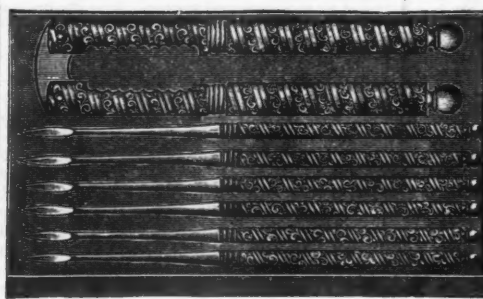
As a man is followed by his shadow, so is he followed by the horizon of telephone communication. When he travels across the continent his telephone horizon travels with him, and wherever he may be he is always at the center of a great circle of telephone neighbors.

What is true of one man is true of the whole public. In order to provide a telephone horizon for each member of the nation, the Bell System has been established.

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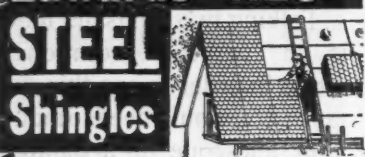
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FARM DEPARTMENT



Reform in the System of Supplying Farm Produce to the Large Cities.

By C. A. Green.

A committee has for some time been at work examining the system of supplying the citizens of New York City with farm and other produce. This committee finds that the expense or cost of farm produce and other produce of New York City, when it reaches the transportation terminals, that is when it gets into the city, costs \$350,000,000, and that all these food products cost when they reach the consumer's kitchen \$500,000,000. In other words it costs \$150,000,000 to get \$350,000,000 worth of supplies from the point where the product reaches New York to the kitchens of the consumers.

This is a marvelous showing and indicates bad management and the need of reform. It indicates the possibility that in many of our large cities the consumers of farm products pay double what it should cost them, or nearly double what the producer gets for the product.

This committee finds that the marvelous cost of getting the products of the farm to the consumer's kitchen does not consist

Important as this subject is to every city and particularly to the farmers and fruit growers, the question would seem to have received but little attention so far. Most cities like that of Rochester, N. Y., are satisfied with a public market located at the extreme edge of one side of the city, a location so far distant from the majority of the buyers, who are consumers, that these consumers seldom visit that market or derive any benefit from it. Our city authorities seem to fear that if this local market were situated in the center of the city, or if there were four or more public markets located so as to supply the four large divisions of the city, this would conflict with the grocery trade.

It will be seen that whenever a reform of this kind is started somebody's toes are stepped on and this prevents proper action.

There is no use asking questions about the high cost of living when we consider the fact that the consumer pays nearly double what the product costs delivered at a certain distant point of a large city, for here is reason enough for high prices. The great question is how to bring the farmer and his products to the door of the



The above photograph illustrates the method of inserting a dynamite cartridge in a stump in such a way as to blow out the stump with but slight effort on the part of the operator. As a boy on the farm I can remember spending several days digging out one stump which by modern methods could have been blown out in a few moments. There is no excuse now for any farm being encumbered by stumps and rocks. Rocks are broken in pieces by simply placing dynamite cartridges on top of the rocks and covering the cartridge with earth. I do not advise every one to use dynamite. One should be taught how to use it by an experienced teacher. After one has learned how to handle dynamite safely he should have no difficulty in getting profitable employment in blowing out stumps and blasting rocks for others in his locality.

very largely of the profits of the middleman, but that the waste or loss occurs by bad facilities or a bad system of distribution or means of distribution. The committee finds that the corner groceries are not making large profits on the farm or garden products which they sell. In fact the smaller groceries scarcely make more than enough to furnish the groceryman with a modest livelihood. It is not shown that the commission houses make exorbitant profits where they do an honest business, but there is no doubt that many commission houses defraud farmers and fruit growers.

The committee in order to remedy the present system of supplying the people of large cities advise what they call large unit retail stores capable of supplying 25,000 to 50,000 people, each of these store houses to be supplied with cold storage and ordinary storage facilities. The thought of the committee would seem to be that large store houses should be located at different points in a large city and made as easy of access as possible to the largest number instead of having thousands of small distributing centers such as the small groceries now are. This plan would lessen the expense of delivery of farm products and other supplies to residences or hotels, which is now a large expense owing to the fact that delivery wagons have to cover a large territory and are constantly covering territory also covered by numerous other delivery wagons, whereas by the new plan the delivery wagons would have special routes of their own nearby.

It is plain that the interest of the cities as well as the interest of the farmer and fruit grower can be conserved by systematic method of distribution when the products reach the cities.

consumer at the least possible cost or waste or loss of time.

The committee finds that the primary or wholesale prices should be fixed by systematic auction in lots suitable for purchase by retailers. Such auction should be conducted under the auspices of the city or of a public organization, not for profit, so that this auction in which all parties interested should have a voice, would constitute, on primary prices, a producers' and consumers' market. The system is successfully practiced in foreign metropolitan markets. Finally, the committee recommends that the railroad and steamship lines entering the cities of the state should be encouraged and required to provide adequate facilities for the prompt deliveries of food products for their sale by auction on the premises, for temporary storage, both cold and general, to carry over one or two days' supply and for the publication of bulletins showing supplies to arrive.

A NEW FARM AND ORCHARD TRACTOR.

Especially Designed to Meet the Needs of the Average Farmer and Orchardist.

This tractor was primarily designed for orchard cultivation. It is, however, equally suitable for other farm operations. It is particularly adapted for orchard work because it is built very low to the ground, the height over all being 4 feet 6 inches without the limb shields. This enables it to work to good advantage around trees as it will easily pass underneath the limbs. There is a very large field for this tractor in the fruit growing sections of this country. Owners of large orchards and vineyards have for a long

time felt the need of traction power for cultivation purposes.

One of the great disadvantages with most tractors is that they are built too high and therefore cannot work easily around trees. Those farmers who have already had experience with this new orchard tractor find it very desirable, particularly for cultivating their orchards.

The engine used on this tractor is of the two cylinder, two-cycle type, rated at 35 brake h.p. It will develop about 18 h.p. at the drawbar. It will operate on gasoline, kerosene or distilled oil, and will pull up to 6 plows at a high rate of speed.

One very good feature of this tractor is its flexibility. It can be turned in a radius of 10 feet and can be handled as easily as a team of horses. This makes it particularly adapted for work in small fields and among trees.

Its extreme light weight gives it a decided advantage as a field tractor. It can be used anywhere on ground that will hold up a team.

The drive wheels are built up in such a way that in moving its action on the soil is the same as that of a horse's hoof. They do not pack the soil in passing over it, nor do they slip or become clogged. They have more tractive power than built-up wheels of twice their diameter or face.

The new Rumely orchard tractor will fill a long felt want, and from tests that have been made on it, it has been found thoroughly satisfactory from every standpoint.

Art in Giving.

Written for Green's Fruit Grower By Grace Dietz.

Independence is born in every soul whether he be rich or poor. No honest man likes to receive charity. But if he could pass on all he could well spare to the less fortunate, he could hold up his head when very often his eyes seek the ground on meeting those who know he has accepted that which he is not able to return.

Let us have a new order of things. Never mind about what certain people may think. Let us be brave enough to "pass it on."

"Let it wipe another's tears;
Let it travel down the years,
Till in heaven the deed appears."

Let us make a note of every little and big favor we receive each day and, as far as lies in our power, "pass it on" or its equivalent to some one less fortunate. Not necessarily a poor person, that is, poor in this world's goods. Sometimes people who have a great amount of wealth are in need of favors. Favors do not always represent a certain amount of cash. The favor may be only a smile or a cheerful word. Sometimes it is a personal sacrifice that is given. If these things could be rated at money value, the cost to the donor would be more than a large sum of money many times.

So many of the favors we receive are passed by unnoticed. If we form the habit of noting them that we may be able to pass them on, we shall soon realize how many, many favors are being bestowed upon us every day. We are quite in the habit of thinking they are mostly Christmas presents, birthday gifts, invitations to functions, and such things. Of course those things represent the money favors, but if all the minor gifts we receive were placed beside them, the money favors would not make much of a showing.

To make the idea practical we must put God before the opinions of our friends, and in many cases we must "let not the left hand know what the right hand doeth." It means a sacrifice of pride, the hardest of all sacrifices which we are called upon to make. In many cases we must give with the greatest delicacy, or the people who can least afford to make presents will be returning the equivalent because of their independence. A very good plan would be, when making a gift to a poor person, to enclose a card with the words: "As the Lord prospers you 'pass it on.'"

Do not think that I am suggesting to you to cut off your friends and give only to the poor and unfortunate and the people who have no special claim on your generosity. We all need favors in one way or another, and none of us are so rich in all things but that some of our friends are richer. But let us give with the understanding that the favor is to be passed on, and let us do all in our power to imbue others with the spirit of real giving.

Three weeks ago a small box of jewelry was stolen from the home of Miss Josephine Schultz, of Joliet, Ill. Last night, it was found in the stomach of a cow, which was sent to an abattoir here from a farm eight miles from Joliet. No clew has been found to trace the journey of the jewelry from the Schultz home to the farm. The articles found in the stomach of the animal are two brooches, one diamond ring, a bracelet and a woman's gold watch. They were returned to Miss Schultz.

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Fall Planting.

Experience has proven that fall set trees generally live better and grow off faster the first year than spring set trees, says Home and Farm. This is accounted for by the fact that the winter rains go a long way toward settling the dirt around the roots and getting them in a position to grow off early, while this is not true of spring plantings.

In setting trees look well to the matter of having the holes large enough for the roots to retain their natural shape. I have seen men set trees by digging holes with a post auger, and packing the roots into this crowded place. Sometimes, it is true, the trees will live and grow, but more often they will die within a year or two, or if they do not die, they do not thrive near so well as the ones planted in a larger hole. In setting the young tree, see that the roots are straightened and not tangled. Sprinkle fine pulverized soil among the roots, and when the hole is about half filled with dirt give a gentle tramping, so as to settle the dirt well toward the bottom of the hole. When the hole is filled with dirt, tramp again, not too much, however. It is a pretty good idea to give the tree a gentle pull upward just before the last tramping, so as to give the roots a gentle slant downward, as often when this is not done the tramping will leave them with a little bend in the middle and a little upward incline at the ends.

F. G. Grinnell of the Fruit Growers' Association stated that land in many parts of Genesee county, New York State, had increased in value 50 per cent. on account of the adoption of modern methods of caring for orchards.

similar to that of patent medicines upon the human body, or words to that effect.

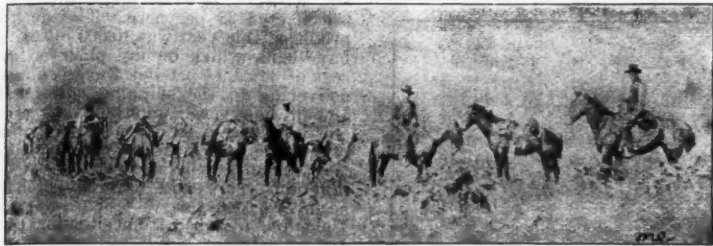
I was surprised to hear such an expression from such a reliable source for I have not thought there was similitude between patent medicines and commercial fertilizers.

There are few of us who approve of patent medicines but there are many who approve of the free use of commercial fertilizers.

At Green's fruit farm we are using more commercial fertilizer each year. I am continually urging our foreman to buy more barnyard manure and more commercial fertilizer, telling him that I believe it will pay to make free use of this method of increasing the yield of our crops.

Here is the result of one of our experiments. On a piece of low land near the swamp where the soil was thin and cold, we applied a good dressing of Thomas Slag. Previous to this application of fertilizer the crop of hay was scarcely ever worth cutting. This field had been unprofitable for over thirty years. The season that the fertilizer took effect we had one of the finest crops of hay in our part of the country, and the field has given good crops of hay ever since. This is the most remarkable illustration of the helpfulness of commercial fertilizers I have experienced on our farms, but we are continually using nitrate of soda, postash, and sulphuric acid in many forms on various crops of grains and fruits with good results.

How can our friend of the experimental station compare commercial fertilizers to patent medicines? The most of us do not know what patent medicines contain but we do know something about the constituents of commercial fertilizers. We



On the trail to Boles, Idaho.

Thirty Miles Over the Trail in Idaho.

Mr. J. G. Ruggles writes Green's Fruit Grower that he lives thirty miles over the trail, which means thirty miles from now-where, in Idaho. He says he is a subscriber to Green's Fruit Grower and desires to have a change in his Post office address noted.

Mr. Ruggles sends us a faint photograph, which we attempt to reproduce, representing himself and his friends riding over the trail to his new home. Mr. Ruggles is mounted on the horse furthest to the right. They probably go in force so as to escape highwaymen or marauders.

This letter tells of the queer places where Green's Fruit Grower goes. Since this is a national publication its subscribers live in every part of the United States, even the most secluded districts far away from railroads or stage coaches.

There is no roadway leading to Mr. Ruggles home. Nothing more than a trail over the mountains. Some of our readers may be sorry for Mr. Ruggles and think he is having a hard time and that he is not enjoying life, but this is probably a mistake. There are many people who like to live in wild and retired places. Mr. Ruggles doubtless has many pleasures that other readers do not enjoy.

Some years ago I remember a subscriber to Green's Fruit Grower, who lived 150 miles from a postoffice. This man was anxious to surround his home with fruit trees, plants and flowering shrubs, therefore I mailed him small trees, vines and plants with which he was eminently successful. His remarkable success in producing peaches and other fruits in a section of the country where they had never been grown before and where it was not known that they would thrive, has led to the planting of large orchards in his locality and to the making of a rich fruit growing region.

The Editor regrets that the photograph sent by Mr. Ruggles is too faint to be clearly portrayed. The photograph was taken in the midst of high mountains through which the trail can be dimly seen.

ARE COMMERCIAL FERTILIZERS LIKE PATENT MEDICINES IN THEIR EFFECT ON THE SOIL?

Views of a Farmer as Compared With Views of Prof. L. L. Van Slyke.

A certain professor in a New York State Experimental Station has published a book on soils and fertilizers in which he is reported to have said that commercial fertilizers have an effect upon the soil

know that nitrate of soda will promote the growth of plants, and that plants feed upon potash and phosphoric acid. We know that we can buy commercial fertilizers that have the same ingredients as barnyard manure, with one exception, that they do not add humus to the soil or loosen up the soil as does barnyard manure.

Letter of Explanation from Prof. L. L. Van Slyke.

Chas. A. Green: I wish to thank you for calling my attention to the statement attributed to me in my book "Fertilizers and Crops."

Perhaps I cannot do better than quote two paragraphs, which embody in brief form my teaching in regard to commercial fertilizers: "The wasteful methods of crop raising and the neglect of ordinary precautions in saving and utilizing the farm resources have led to increasing dependence upon the blind use of commercial fertilizers; this practice has developed in too many cases into a habit not unlike the patent medicine habit, so far as relates to knowledge of the materials used and intelligent reasons underlying their use. Millions of dollars have been thrown away in using commercial fertilizers, because the conditions which make their use effective have not been appreciated or understood by farmers." (pp. 4-5).

"When climate and the physical conditions of the soil are suitable for crop growth, the primary problem of crop production is crop feeding. Sufficient supply of available plant-food to meet crop demands is maintained most effectively as follows: (1) By the most careful saving, management and use of all excrements of farm animals, both liquid and solid, as well as of all farms of organic farm refuse; (2) By desirable rotation of crops; (3) by the use of leguminous crops or crop residues as green manure to add nitrogen and organic matter to the soil as well as change insoluble plant-food materials into available form; (4) by maintaining in the soil a sufficient supply of calcium carbonate (lime); (5) by the use of purchased plant-food materials (commercial fertilizers) in such amounts and forms as to supplement most economically the local needs of the soil in relation to crop feeding under the system of farm management in practice." (pp. 514-515).

I trust the foregoing will meet your request.

Wife—How does my new spring hat look, Tom? Hub—Um: It looks to me like two weeks' salary.—Boston Transcript.

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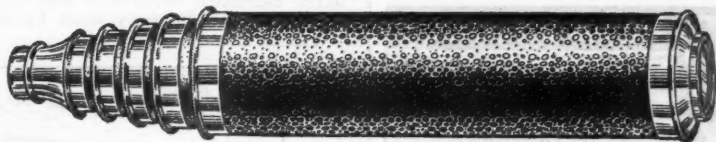
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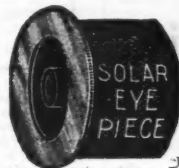
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Pat. April, 1899.

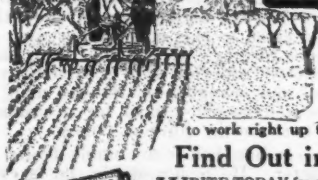
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By **SAMUEL B. GREEN, B. S. Hort., For.**
Professor of Horticulture and Forestry in the University of Minnesota

This book covers the subject of Fruit Culture in a most thorough and practical manner. The great growth and wide specializing in fruit growing has led to the increase of troublesome pests. This subject is explained so carefully that a painstaking grower can quickly recognize the presence of these pests in their formation and check their injuries by applying the methods of extermination so minutely described in the chapters "Insects Injurious to Fruits."

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THE INDIAN CAPTIVE.

Peculiarities of Indians.

By C. A. Green.

I have great respect for the pioneers who have pushed westward in advance of civilization for the purpose of establishing homes. I realize the sacrifices made by the pioneer, his wife and children, in leaving their eastern home and locating far out on the prairie, possibly fifty or one hundred miles from a neighbor or post office.

There are many perils encountered by these pioneers. They can have but little knowledge of the new country for it is without historical record. The spot on which the family is located may have been visited time and again by the tornado. It may have been visited by insect pests which devoured every green thing in its path. Or it may be in the path of warlike Indians.

What shall the pioneer do when he, his wife or children are stricken with disease and there is no doctor to assist, to prescribe or nurse?

What shall they do in case of a serious accident that calls for the surgeon's skill. How shall the father secure supplies for his people and for their other physical wants? Notwithstanding all these hardships many thousand families have located far out on the plains during the past years. Some of these early settlers can today point with pride to their beautiful and productive farms, to their orchards, berry fields and almost luxurious dwellings, while others less fortunate have been buried on the land upon which they settled and there is nothing now to mark the spot.

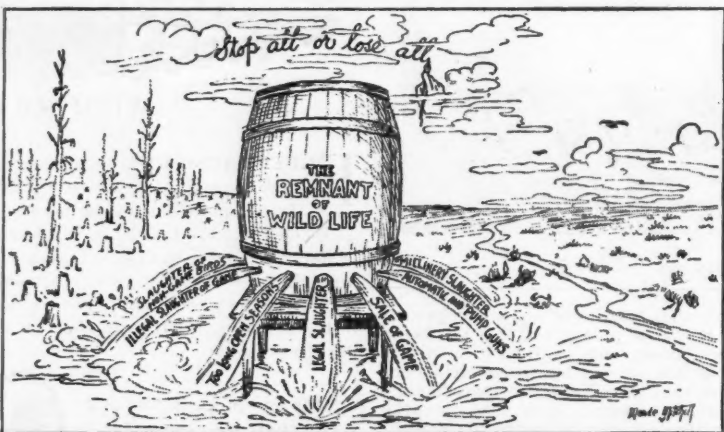
John Burkhard with his wife and daughter settled in early days in the

do all the work and the women are perfectly contented to do the work.

The Indians of this country have been shamefully treated by the white man and by the white man's government. They have been repeatedly driven from the lands they own, robbed of their property and banished into reservations, so called, and then these reservations so called are taken from them for one reason or another, the Indian is sent far back into the wilderness where possibly game is scarce and he has difficulty in keeping himself and family from starvation. Miners searching for gold, silver or copper, hunters greedy for the slaughter of buffaloes or other game, stride into the Indians reservation committing lawless acts, thinking nothing of shooting an Indian, or about outraging the feelings of the Indian's family. The consequence is that the Indians wild revengeful nature is roused, he sounds the tocsin of war, there is a war dance and the braves of the tribe start out on the warpath for slaughter. Every white man seems at that moment to be the enemy of the Indian.

It was such a war party that on the eventful day previously described came upon the home of John Burkhard. This honest farmer had done the Indian no wrong, but this they were not assured of. They were after blood. The helpless mother was slain and the daughter carried into captivity.

God writes the gospel not in the Bible alone, but on trees, and flowers, and clouds, and stars.—Luther.



The above cartoon was made by Maude Mitchell and used by Dr. Hornaday in his work of educating the people to protect bird life, forests and conservation in general. Notice the handwriting on the sky over the barrel, the words "Stop all or lose all." He refers here to the fact that unless we stop the destruction of birds there will soon be no birds left and our fields will be over-run with destructive insects. The barrel is made to represent the remnant of wild life. From holes in the base of this barrel the remnant of wild life is escaping through the slaughter of non-game birds, illegal slaughtering of game, too long open seasons, legal slaughter, sale of game, automatic and air pump guns, slaughter for millinery purposes. These seven wasteful streams are flowing so rapidly from the remnant in the barrel that it is readily seen the holes in the barrel must be stopped at once in order to save the remnant. There is a good sermon in this cartoon, therefore the readers of Green's Fruit Grower will give it their considerate attention.

Profitable Fruit Growing for the Western Slope.

Written for Green's Fruit Grower by A. L. Roberts.

In all of the Colorado fruit districts are thousands of fruit trees reaching often miles in extent, their straight rows showing beautiful green in summer against a back ground of dark or reddish soil, or in winter only a little less brilliant with healthy dark or reddish twigs. But it is at the blooming time in the spring that the orchards are the most magnificent. Anyone who has seen a whole fruit section in flower has certainly been inspired.

I make a point of these beautiful things connected with fruit growing, because to me it is one of the things that makes the life of a fruit grower pleasant. This I believe is the truth on the Western Slope. The pleasant healthful climate, the freedom from destructive storms, and an occupation that has beauty and charms and does not require a great deal of real hard physical work. For although fruit growing is a branch of farming, the fruit growers there do not work nearly so hard as farmers do in the east. Still a great deal of attention is required and a large opportunity is offered for an increase in revenue by the exercise of careful thought and judgement.

And the fact that there is in this work so many ways to make one's success more pronounced by carefully planning an especial feature, for horticulture, has long been conceded to be an ennobling vocation, attractive to cultivated classes, but was also at one time considered more fitted for people of leisure with time and inclination for such fussing as budding, grafting, etc.; whereas of late years in fruit sections it has become a business as well, and as a business is the more attractive in that if properly handled and marketed as mostly it is, practically one's entire crop is carried and shipped once it

is gathered at harvest time; and in a few weeks or at most in a few months the grower can have in one lump much the greater portion of what his crop brings.

When my apple orchard was fifteen years old, being twenty-six acres, with trees large and thrifty, it cost me \$500 to prune it, or about 21 cents per tree. It cost me \$786 for work and material for spraying for aphid and codling moth, it cost me \$1,000 to pick the crop and deliver it to the packing house. The orchard produced 10,000 boxes of apples that year which makes a cost of 10 cents per box for picking. This, by many, is considered too high, and I admit it is enough, but the trees are large and I required great care to be taken in the work. One of my neighbors gathered 4,000 boxes this fall at an expense of \$182 or a little over 4-1/2 cents per box for picking alone. He did not count, however, his own time or charge for his own team which was busy hauling out of the orchard, or the expense of hauling from the orchard to the shipping house which was in this case one cent per box. This would have brought his total gathering and delivering expense up to about 7 1-2 cents per box.

The cost of thinning I believe was under \$200. The cultivation I am even less sure about, as orchards of all kinds, both apples and peaches, bearing and not bearing were tended together. But allowing for all hired help, board, lodging, and feed for all stock necessary to properly care for the place, together with repairs, as near as I can come, was not over \$1,000 for all these things to be charged to the bearing orchard part upon which I am endeavoring to compute the expense. This would make a charge for thinning, cultivation and care not otherwise accounted for of \$1,200 and a total expense for the year for the twenty-six acres of bearing apple orchard of \$3,600 or \$138 per acre. The quantity produced this year was 10,000 boxes, as I have said, which on my place makes a cost of 36 cents per box for growing and delivering to the shipping point. This amount however, cannot be taken as conclusive of the general cost per box or acre of growing apples on the western slope as the amounts will necessarily vary on different years and different orchards, according to nature of orchard varieties, yield and distance from shipping point. My experience would lead me to think however, that the average cost would be somewhere between twenty-five and forty cents per box.

But as there were about 500 boxes of these and also a considerable quantity of windfalls and culls which were sold by the ton to the canning factory and evaporator, I am sure I will not be adding too much if I call the net shipping returns \$8,000 or about eighty cents per box. From this amount must still be deducted the growing and delivering expense which would leave a real net profit of \$4,400 or \$170 per acre for the year 1910.

How about the spring frost problem. Injury by frost can be prevented by heating if the conditions are not very unusually extreme. Such a condition as affected my orchard last May would have been easily overcome at small expense. It is needless to say therefore that I am preparing to be ready to heat if necessary. And my belief now is that in a few years orchard heating will be much more scientifically handled than at present, and will therefore be more uniformly successful.

There are 70 edible species of seaweed growing on the coast of Hawaii and over 40 are in common use among the natives.

Suffering May be Helpful.

Written for Green's Fruit Grower By W. Scott Haskell.

Through suffering we can understand the feelings of those who suffer and sympathy is awakened in our bosoms. Through suffering we learn to contrast the sorrow and the joy, and hence are in a better position to appreciate the joy, the good things in life. By sensing the shadows as well as the lights, we acquire a broader range of vision and can paint life's picture with deeper meaning and more beautiful coloring than we could if we had only sensed the calm sweet ways and plucked roses without thorns. Always remember that your most grievous suffering is but the road to greater joys, for all things adjust themselves by divine law. Don't try to suffer, don't needlessly torture yourself; but when suffering comes unavoidably, take it as a means of grace, and thank God for the opportunity to mount another step on the ladder of self-mastery.

When we have learned this simple lesson we will cease to blame Tom, Dick and Harry for our troubles, and thus prevent a lot of unwholesome vibrations going out to our brothers in earth life. It is an easy thing to get the habit of blaming someone for our lack of success, it is easy to blame nature because she allows a little rain to fall on the day we had set to go to the picnic, it is easy to blame everything and everybody but ourselves. Stop and think.

"BACHELDER-BUTTONS," Or Romance of a Schoolmam. Written for Green's Fruit Grower By Jack Ross.

The fast train, due at Halfville at the noon-hour, stopped a few seconds to let off one passenger, then hurried on, a long, gray column, soon lost to view.

The passenger, a lady, a little above the medium in height and of a complexion that spoke of the city, finding herself alone decided to walk over to the little station, but just then she noticed that from the road below, a man was coming up, apparently to meet her, so she waited for him to approach.

"Are you the teacher we hired for to teach at the Halfville school for the coming year?" he called, halting a few paces from her.

"I am Miss Higgins," she answered, a little amused smile playing around her expressive mouth, and a merry twinkle illuminating her hazel eyes, "and I was appointed as teacher by the school-board of Halfville."

"Well, that's me, it's all right then," advancing towards her. "I'm the director of that there board."

"Oh, then you are Mr. Chippen. May be you can tell me where I can stay until I have found a room and board?"

"You're welcome to my house, an I've come to take you there. My woman's waitin' with the dinner. I'll carry some of 'em," as Miss Higgins stooped for her suitcase, satchel and hat-box. "My rig's down there," pointing over his shoulder to the direction from which he had come. "You can't come close to the train; them blamed critters of a pair o' hosses are scared to death o' that engine."

The grazing cattle, the cornfields, and especially the broad vineyards that they passed on their way to Mr. Chippen's farm, were new and fascinating sights to the city-bred Miss Higgins.

"How pretty the country is around here," she said admiringly as soon as she could wedge in a word, for her companion was talking incessantly.

"Country'd be all right," Mr. Chippen agreed. "If't warn't for the lot o' loony people we've got 'round here. Now there's one that beats 'em all," pointing with his whip to a man of slight stature who was coming up the road. "I know where he's been, down to 's pasture, talkin' to 's cows; talks to 'em's if they were human beins, my cousin says. She's keepin' house for 'em, you know, bein' a widdler-lady. Hullo, 'Bachelor-Buttons,'" he shouted, as the man was nearing the buggy, "been preachin' to your cows? Don't you want me ter interduce you to our new teacher?"

There was a gesture as if the man thus addressed wanted to touch his wide-brimmed hat, then the buggy had passed him.

"Ha, ha!" laughed Mr. Chippen, looking at his companion for appreciation of his joke.

Involuntarily Miss Higgins lips opened for a sharp remark, but she quickly suppressed her indignation, thinking just in time of the advice a dear, old aunt had once given her. "Never try to reform a new acquaintance," she had said.

"Is that his real name, Bachelor-Buttons?" she asked.

A veritable explosion of Mr. Chippen's laughing-force was the reply. "Naw," he cried, "it's a name that stuck to 'm ever since he performed that loony stunt of his'n."

"What did he do?"

"What he done? Well, I'll tell you. We was havin' a concert up at the chapel, an one of our young ladies was recitin' a piece 'bout how them there blue flowers, called bachelor-buttons, came by that name, an soon's she got through, he was to come for'ard an persent her with a large bunch o' them blue flowers. Well, she'd 'bout finished her piece, an we was all watchin' for Bachelor-Buttons to come for'ard, when all at once he come tearin down the aisle, holdin' his baquay, all put up in white tissue-paper, upside down, an them flowers a trailin' out behind 'm, an when he come to the platform to persent his bachelor-buttons, he holds up a' empty bag o' tissue-paper to 'r, an if ever you hearn a roarin' crowd! Tell you, 'twas the best performance o' the hull concert."

"And what did the poor fellow do?" asked Miss Higgins.

"Him? Well, he lit out, took to the door nearest to 'm an went straight for home, an he never come near the chapel ever since, though the old lady, that's his mother, she come off an on."

"Oh, then he has a mother living with him?"

"Naw, she's dead now, died year afore last."

"The poor fellow!" exclaimed Miss Higgins compassionately.

"Poor fellow, you call him? You needn't shed no tears for 'm. He squeezes more money out o' them twenty acres o' his'n than the rest of us out o' forty an more."

"He does? Well, how can he? Is the soil on his farm so much richer?"

"No better'n ours, but he dopes his trees an scatters a lot o' what he calls plant-food all over the place, an my cousin, she says, he goes an mixes up barrells o' pisonous stuff,—she knows it's pison, for he tells her not to handle it,—an then he goes an squirts it on his trees."

"Well, why couldn't the rest of you do the same?"

"We don't stoop so low here as to copy from a' old fool like him, the dude! Now, why don't he marry an pervide for a family I'd like to know. There's my cousin, as capable a woman as any of 'em; good cook too, an gets up his pet meals for 'm, an him, only talks to 'r when he's got to, he's that uppish.—But here we are now," drawing up before a rather dilapidated gate. "Hullo!" he shouted, as a boy with tawny hair appeared at the barn-door. "You come here an help your teacher carry the things up to 'r room."

Her first afternoon in the country Miss Higgins spent being shown over the farm by the five Chippen children, duly admiring the cows, pigs, horses and chickens. If she had wished, she could have found out the history of all the different occupants of the surrounding farms, for the children were as loquacious as their father, but she cut short their eager informations by a few well directed words, preferring to find out for herself. However she gathered that school during the preceding year must have been in a continuous state of riot. This knowledge, though not a very pleasing one, determined her attitude in regard to her prospective pupils.

After supper the lady of the house joined her on the latticed porch. She was a spare little woman, not much older than Miss Higgins in years though looking aged in comparison. Her unceasing round of duties gave her but little time for recreation, but her family and an occasional visit kept her well posted on the affairs of her neighbors, and since the proceedings of the outside world were beyond the horizon of her interest, she was quite content with her lot.

From the road below the shrill voices of the children could be heard who were playing boisterously. Evidently the gathering place for all the children of the farms around must be right there, according to the noise.

"Yes, them young ones are an awful noisy lot," Mrs. Chippen replied to a remark of Miss Higgins in regard to them. "They've been running wild all last year. So then we said: 'We've got to hire a good teacher, an one that ain't a spring chicken neither, if we do have to pay her more'n we ought to.' Y'see the teacher we had last year she warn't no good. I 'xpect, you'll have your hands full, an I'm glad I ain't in your shoes."

"That doesn't sound very encouraging, Mrs. Chippen. Were they just mischievous, or are there any that are really ugly among them?"

"Oh, I dunno, there aren't no thieves among 'em I guess, but they was allers up to some trick or 'nother. Now, they just about bothered the life out o' that man down beyond them woods there that they call Bachelor-Buttons. He's a queer sort, y'know, but them children had allers something ready for 'm, an they used ter plan it out in school, you know."

"One day, they all go to meet 'm on the road, one by one, on each one says: 'Howdy, Mr. Bachelor-Buttons?' an't made 'm so mad that he grabbed one o' them big boys to thrash 'm, but he got away from 'm. Oncet they go to 's barn an tie long strings o' them flowers he's got that name from, in the tail o' his horse. But I tell ye, they never done that twice, for he'd put up some contraption 'round his barn somewheres, an he caught one boy in't, an if ever a boy got a thrashin, that'n did."

"He deserved it," said Miss Higgins with satisfaction.

"Well, yes, but he's a queer sort y'know. Now, my husband's cousin that's keepin' house for 'm, she says, he allers keeps the room his mother slept in afore she died, locked up, an she's never seen the inside of 't, 'cept oncet when he'd forgot to pull them shades down an she was a-washin' the windows from the outside, but she couldn't see much neither."

"Did they always live here?" Miss Higgins asked.

"No, they come here 'bout ten year ago or so; they come from the city, but I dunno which one they come from."

When late in the afternoon of the following day Miss Higgins locked the door of the school-house and put the key into her pocket, she uttered a deep sigh of relief. It had been such strenuous work to keep the tittering children occupied. Here she had come to the country, thinking that life there would run as smoothly and untroubled as the quiet waters of a placid little lake and would act like balm upon one's nerves, but oh, the lot of mischievous, saucy little faces that had looked up at her today.

"Well, it's all over for one day anyhow, and Miss Higgins is not so easily conquered," she comforted herself as she

walked homeward, smiling in spite of her disappointment.

The next morning, when school had just begun, she felt that something was going on among the boys for she caught some of the significant glances they exchanged with one another, but however their intentions, her plans were laid more ingeniously than theirs and she succeeded in keeping them so busy that somehow it was twelve o'clock before they had a chance to explode one of their evil plots.

Thus things went on all through the week, and when on Friday afternoon she took from her desk a beautifully illustrated edition of "Black Beauty" and proceeded to read to them with that low, sweet voice of hers, her eyes shining, the faces looking up to hers had lost much of their sauciness; they were eager, interested little faces, and Miss Higgins knew that she had come out victor.

This was Saturday morning. Two days ahead in which to feel as free as a bird; two days too, in which to keep mind and body occupied to still the old longing, that homesick feeling of her lonely heart.

"How pretty you are, real youngish you look, y'do," she was greeted by Mrs. Chippen as she passed through the kitchen in a fresh, simple frock of pink and white.

"I am going to see some of the country today," she smiled back to her. "Will I get lost in the woods, you think?"

"Not's long's you keep in the path, I don't think."

"Well, I'll keep in the path then," she laughed and sauntered off into the near-by woods.

The grandeur of the fragrant aisles she walked soon took hold of her. How delicious the sweet notes of the birds that greeted her ears! She walked on and on; the path she followed sometimes narrowing down, sometimes broadening into glens, fringed by young oaks interspersed with stately pines and hemlocks. What were city-parks, how trivial the pomp of city-life compared with the majestic grandeur about her!

Presently however, another thought took possession of her. Where was the path? She had lost it and could not tell the direction from which she had come. She listened for human voices, but all was quiet, a gentle breeze stirred the leaves of the treetops and a hermit-thrush poured forth a sweet, plaintive song. She felt a peculiar sinking at her heart, but quickly overcame the momentary fright and wandered on, hoping soon to reach the edge of the woods.

Although looking diligently for the path, she could not find it, but after she had squeezed herself through a thicket of witch-hazel, shrubby pines and wild goose-berries, she emerged facing a barbed wire fence and, crawling through this, found herself in a large, grassy place, dotted here and there by clumps of shrubs and trees.

Discovering some buildings in the distance, she decided to walk up to them,

when, to her amazement, she saw two large cows racing towards her in bounds and leaps. She lost all control for the moment and, uttering a piercing cry, ran back to the fence, where, in her wild endeavor to get through, her dress caught in the protruding bars.

"Coe-boss, coe-boss!" "The words came in strangely familiar tones to her ears, and to her unutterable relief the cows stopped short in their mad pursuit at the call, then turned and ran back as swiftly as they had come.

She sank down upon the grass, a crumpled heap of torn muslin, in which forsooth a frightened heart beat violently. Her hat was gone, her brown hair dangled down her back in two long braids and her serene dignity had forsaken her.

She was entirely unconscious of her appearance, feeling nothing but relief and gratitude, nor did she notice when someone was approaching, and not before a voice quite close to her offered assistance in her plight, did she raise her head.

"Donald!" A blending of surprise and of the sudden awakening to a realization of her appearance rang through her voice and made the color surge to her cheeks.

"Don't fear," he said, misunderstanding her, "I shall not plead my suit; I will not take advantage."

"Oh," she gasped, noting the sadness in his voice, "have I not fulfilled your conditions? Have I not come to you of my own accord? Is not this land yours?"

"Lucile!" he exclaimed huskily, "you did not come intentionally."

"But," she said mischievously, lowering her gaze before the intense love revealed in the clear blue of his honest eyes, "the humble state in which I came ought to make up for that."

He was on his knees in a minute beside her. "Do you mean? Lucile!"

"I mean all I say, Donald, I've repented my hasty words to you, and all these years I've suffered and—and I've been homesick for you."

"And to think," he said, taking her hands tenderly into his, "that if you had come here only one week later, I might have lost you forever. I closed a deal yesterday by which this farm becomes another man's property, and I've bought a larger place in a different part of the state, for I was such a coward, I did not want you to know who was the 'Bachelor Buttons.' I saw that you did not recognize me, dear, when that scoundrel!"


"Don't, Donald," she interrupted him, freeing one of her hands to stroke his caressingly. "It's ignorance mostly that makes them talk the way they do, but wait, dear, they'll have a different opinion of you by the end of the year."

"Then you'll remain here?" anxiously.

"I've signed a contract for one year, you know."

"And at the end of the year, dear, you'll—"

"Come to you," she finished.



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The Fruit Farm.

Fruit Work.

Fruit grown on the farm brings in good profit if given care and attention. If it is cared for in the right way, there will be something to do in the orchard, or the field each month. If there is work to do in the orchard or berry patch do it right away and don't put it off. If trees bear very heavily, I prune in the spring. If the tree does not bear so heavily, I prune in summer. If the trees do not bear enough fruit, I prune in November. Pruning a tree just after it has started to grow will greatly reduce its fruit. A tree pruned during its great summer growth will stop the over-bearing of fruit. A tree pruned in November will greatly add to its fruit bearing, says Farmer's Review.

After pruning the trees in November I take a pail of white lead and a paddle and put a good coat of lead on each cut where the limb was severed. This will save the tree any bad effects from the wound. It is very injurious to cultivate the orchard in November, for a new growth is likely to start with the trees and the bark would become tender and green, and when the freezing begins, the trees are likely to suffer. Another reason I have for not cultivating the orchard in November is that the ground is loosened and the tree pests will penetrate the soil in search of a comfortable resting place during the winter. When spring comes they will find their way out into the trees to destroy their precious fruit. Some spray strawberries in November, but I spray mine in September. I spray blackberries just after I have pruned them, and I prune them the first of November. Raspberries

I treat the same as blackberries. November is the time to wrap small fruit trees with some good wrapping. November is the time to haul stable manure to the orchard and put some around each tree. November is the time to bed each tree with straw for the protection of the roots. November is the time to bed strawberry beds with some kind of straw or grass.

Winter Spraying.

The San Jose scale is now found in every county in Indiana. This pest was imported from China and thus has no natural enemies in this country. Whenever man does not combat it the scale multiplies unchecked until the trees on which it is found die. Most of our old home orchards have passed out of existence by way of the scale route. This loss of good, healthy, bearing trees is a preventable one, and some of the very effective remedies should be applied in the earlier stages of the scale infestation.

The best remedy for the San Jose Scale that has yet been found is lime sulphur wash. This material can either be bought in the form of a commercial mixture or made up at home. When bought it should be one of the high grade articles and should test better than 32 degrees Baume. The homemade material can be made by cooking together 38 pounds of good, freshly burned lime and 80 pounds of high grade flowers of sulphur in 50 gallons of water for one hour. This homemade solution should test about 26-28 degrees Baume. Both the commercial mixture and the homemade solution are concentrated and should be diluted before being applied to the trees.

As the San Jose Scale is an armored insect protected by a waxy covering, very caustic material must be used in its control. In order not to injure the tree this material must be applied while the trees are dormant. Hence all spraying for the scale must be done during the winter months. Any time when the weather permits from November to March will be satisfactory.

The commercial lime sulphur should be diluted at the rate of one gallon to nine of water and the homemade solution diluted at the rate of one gallon to six of water. Both spray solutions will then test about 4.5 degrees Baume on the hydrometer, says the Farmers' Review.

As the lime sulphur solution is a contact insecticide, every portion of the tree should be coated. If the Scales are to be killed they must be struck with the spray solution. Great care should be exercised in the application of the material, as those scales not killed can reinfect the whole tree in one season.

Contrary to popular belief, the San Jose Scale is not the hardest pest to control which infests the orchard. Proper material applied at the proper time and in the proper way will kill 90 per cent. of the insects. Either purchase a good brand of commercial lime sulphur or carefully make your own and then apply it conscientiously, and you will be able to save your home orchards from destruction by the San Jose Scale.

Handling Apples.

Few people realize the importance of handling apples with care while picking, packing, and marketing, says Coleman's Rural World. Apples are bruised very easily and especially those varieties having a tender flesh or skin. Bruises mean not only an unattractive appearance, but a real waste of fruit by having to cut out the bruised tissue. Probably the greatest damage from bruises, however, results from the fact that the bruises furnish an entrance for fungus or rot spores. These spores, or "fungus seeds," are as fine as dust and float in the air if they happen to lodge on a bruised or broken spot on the apple, they take root and grow and spread through the apple, causing it to rot. Wrapping or covering the apple may not always protect it, as the spores may have lodged on the apple before it was picked. However, if the skin and flesh of the apple can be kept intact and not bruised or broken, there is not much danger of the fungus or rot finding its way into the apple.

To prevent bruising, apples should not be dropped or thrown into a bucket, box or barrel, and in pouring from one vessel to another care should be taken that the apples are as close as possible to the bottom of the vessel in which you are placing them before the pouring begins. If a pail is used to pick in, it should be small enough to lower into the boxes and, even then holding back the apples with the hands is a good idea, as it breaks the fall and lessens the bruising. No apple which falls from the tree should be allowed to go into the first grade apples.

The degree of care it will pay you to exercise in handling your apples will be determined largely by the grade of fruit you are putting on the market and the care with which you guard your reputation as a fancy fruit producer.

Orchard Breezes.

Written for Green's Fruit Grower
By Frank I. Hanson.

There is always a good demand for good fruit. Even when the market is overloaded there is always business for the man with honest quality and full measure.

One does not have to own a large fruit farm to enjoy excellent fruit of his own raising. No lot is too small for a few trees, and they will afford much pleasure.

Every tree and bush on the fruit farm ought to be on a paying basis. If there is any loafing find the reason, for certainly there is one.

The sooner people begin to eat more fruit and vegetables and less meat the more the doctors will keep away from their doors. There ought to be fruit on every breakfast table in the land.

It is a mistake to crowd the raspberries. Do not leave over six canes, not nearer than four feet with rows about six feet apart.

Every fruit grower should have printed shipping tags. With the name of the farm and the address, they add much to the appearance of any shipment. It is business every time.

It is all right to put some good looking fruit on the top, but there must also be just as good all the way to the bottom. Make them appear attractive, but let there be no question as to the honesty.

The man who is determined to make a success of fruit farming must realize from the start that he will have no "snap." Particularly is this true with the small fruits—they require good care.

Growers who have to employ pickers cannot be too careful in selecting his help. Do not tolerate careless, indifferent pickers. There are plenty who really enjoy this kind of work.

When buying a new farm start an orchard at once, if there is not one already. Nothing adds to the value of a place more, nor affords the owner more pleasure.

Getting a good profit is not the only pleasure in owning a fruit farm or even a small orchard. It is a real kindness and a pleasure to remember the poor people and invalids with a filled basket.

Farmers have been known to turn a ferocious bull into the orchard to keep out the boys. Such proceedings ought not to be allowed, as the risk of injuring somebody for life is too great. Besides the animal may escape and cause great harm in other places.

Many farmers pay little attention to the trees until time for the harvest, and then they wonder at the unsatisfactory crop. No orchard can be expected to produce results without good care.

Fallen fruit should be removed from under the trees often. If allowed to re-

main and decay it means a good breeding place for many insect pests.

The most effective way to clear a tree of borers is to dig them out. Rather a slow process but a sure one. Those peach trees cannot be watched too carefully.

The columns of the Tribune Farmer of several years back will bear me witness of the stress I laid on the selection of the "right time" for spraying with oil, and this time is just after the tree has started into active growth. My theory was and still is that oil and water will not mix. When the limb of the tree is full of sap oil cannot enter to work harm. All the injury to trees by spraying with crude petroleum that I ever heard of was done by spraying dormant wood. I have always waited until the leaves began to appear, the first being about as big as "squirrel's ears," before making my spray applications, and I have applied clear crude petroleum even as late as the opening of the first bloom on Bartletts. Only in one case did I ever notice injury from the petroleum spray, and that was on an apple tree with nearly full grown leaves, a limb of which had been drenched, not merely sprayed. Some of the leaves withered and fell off, but were soon replaced by a new set. The injury did not seem to be permanent. At the last meeting of the Niagara County Farmer's Club one of the fruit growers told me that he had stuck to the crude petroleum spray ever since he had heard me recommend it in one of the meetings years ago; that he had had better success with it than with the lime-sulphur and at no greater expense. The oil spreads, and a little of it goes a great way. After all I feel that there is still a place for oil sprays; only we must be sure that we apply them at the right time. Dr. Felt's warning and suggestions may do us some good. If miscible oils like scalecide are as liable to injure dormant wood as crude petroleum is, then the applications must be made after the sap has started in the tree in spring. The danger seems to be in making the applications either too late in the fall or too early in the spring; and when using miscible oils the job is not one to be greatly dreaded. The commercial orchardist whose fruit growing is his main and almost only business will, of course, continue to use lime-sulphur applied with a sprayer of high power and from a high tower.

Judge Rules Wife Must Cook.

Chicago Husbands have a right to ask wives to get supper, according to a decision by Municipal Judge Goodnow, in the Court of Domestic Relations.

William Smith testified that he asked his wife to get a meal one night. She refused and a quarrel followed. Mrs. Smith left home, and brought action against her husband for non-support. Judge Goodnow said she had no grounds for having her husband arrested and discharged the defendant.

"Go back to your husband and cook his meals for him," he told Mrs. Smith.

The hardy Hydrangea makes an excellent hedge plant, which also gives an immense wealth of bloom from late summer till frost. Set the young plants two or three feet apart in the row in fertile soil, work manure into the surface soil every summer through cultivation, and keep the hedge trimmed to about four feet high. Strong shoots which grow five or six feet long are produced at the top each year, and at the ends of these shoots large flower clusters are formed, white at first, but turning to red and purple as the season advances. Such a hedge is well worth the time and expense of making.

Strawberry beds in nearly all localities should be mulched in the late fall in order to protect the plants through the winter. In some localities it may not be necessary to mulch; due to sandy soils, a very well drained soil, or to the fact that the snow forms a continuous blanket during the winter. The aim should be to protect the plants during the periods of alternate freezing and thawing of the surface of the ground, which are so likely to occur in the East when there is no snow upon the ground. This alternate freezing and thawing tends to heave the plants out of the ground and to break the roots.

Care must be exercised in the selection of materials to be used for mulching, so as not to use materials which are too coarse, or which are so fine as to attract field mice, or which mats down so that it smothers the plants. Corn stalks are too coarse unless they are chopped up, which procedure makes them too expensive. Leaves, sawdust, and shavings are too fine for use. They would also require some coarser material on top to hold them down. Buckwheat straw, rye straw, Hungarian grass and marsh hay are all good for mulching, if care is exercised to obtain material which is clean and not full of weed seeds. This mulch should not be put on until the ground is frozen in the fall.—American Cultivator.

Why It Pays to Plant Shade Trees and Evergreens

If you knew a row of Norway Maple shade trees a mile long would bring you in over thirty-eight thousand dollars during the next forty years, wouldn't you plant them?

These figures sound utterly impossible. But the sum named is actually the average value of a hundred and thirteen such plantings. If you haven't a mile of space, the returns from smaller plantings will be proportionate.

Learn how these trees became so valuable and how you can grow trees that will pay as well. The story is told in our new booklet,

"The Why and How of Shade Trees and Evergreens"

If you own land and are thinking of planting trees, we shall be glad to send you a copy free if you ask before they are all taken.

How to Grow and Market Fruit

our guidebook costs you only 50 cents, prepaid; rebated on your first \$5 tree order.

Get our complete catalog of the best fruit trees grown in America, at right prices. Sent free on request.

Come to Berlin and see for yourself how we grow trees. Eastern Shore Farms for sale—write for particulars.

HARRISON'S NURSERIES

Ocean Avenue
BERLIN, MARYLAND

"Sure-Opener"

Will Open Any Tin or Glass Cans

See How It Works

THE "SURE-OPENER" will cut an opening from two to seven inches in diameter in fruit, vegetable, meat and fish cans; paint, oil, syrup and molasses cans; it will also seal and unseal any size "Mason" or other glass jars. IT WILL REMOVE THE TIGHTEST STICKING SCREW TOP FROM TIN, GLASS OR CHINA RECEPTACLES. No more trouble to get tops off gasoline or kerosene cans. No more broken glass or china jars. Saves time and temper. Always ready. The cutter is always sharp. The grip for sealing or unsealing glass or china jars never slips. Adjustable to any size. Is built like a jack—a scientific can opener and sealer.

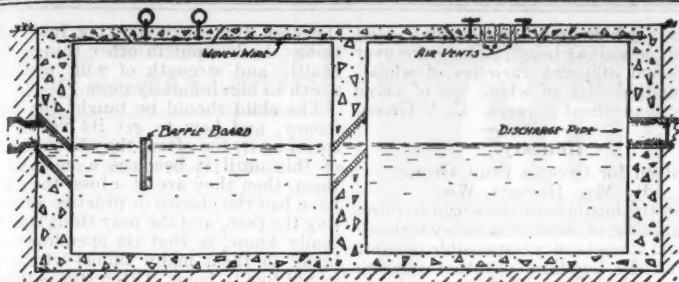
The Lever makes a stronger grip than any man's hand.

Because of its jack-like construction it is so strong that it will cut a perfectly smooth opening in the toughest tin, and will remove the tightest sticking screw top. Actual length is eight inches and made of steel to give toughness and strength. Nothing to get out of order. So simple and positive in its action that a child can easily use it.

OUR OFFER—Send 50 cents for a year's subscription to Green's Fruit Grower and the "SURE-OPENER" will come back to you by return mail.

GREEN'S FRUIT GROWER

ROCHESTER, NEW YORK



Sewage Disposal for Country Homes.

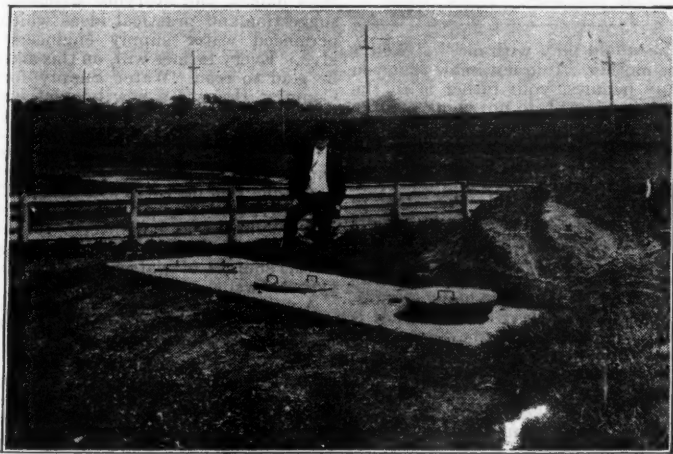
The general use in country homes of modern conveniences of the bath and toilet has made necessary some effective and inexpensive means of disposing of the sewage. Otherwise the drinking water will be polluted and the health of the family endangered. Entire satisfaction is obtained by the use of the septic tank, which is nothing but a long watertight cistern through which the sewage passes very slowly and evenly. Located underground it is warm and dark—ideal conditions for the development of bacteria, little germs which eat up the sewage and render it harmless in much the same manner as another kind causes cider to ferment. The purified sewage, then merely clear water, may be discharged into an ordinary farm drain tile.

SIZE OF TANK REQUIRED.

Although the odor from a small septic tank is practically unnoticeable, yet it is best to locate it at least a hundred and fifty feet from the house. Choose a spot where it can be sunk to ground level and will be out of danger of flood waters. The tank should be large enough to hold the entire sewage for one day. For a family of eight to ten, plan a concrete tank of two compartments each 4x4x5 feet long. Since the top and bottom are each 4 inches thick and the division and side walls 8 inches, dig the pit 4 feet 8 inches deep, 5 feet 4 inches wide and 12 feet long.

trunks or larger branches, among which might be mentioned a heavy knife, trowel, shovel, hoe or rasp. Any instrument that can be used for removing this rough bark to advantage will serve the purpose. Not only is it necessary to remove the bark, but it is necessary to kill the larvae when found. If this is not done, many of those that are scraped from the trunks of the trees will find hiding places where they will live until spring and develop into moths. In the older orchards particularly, trees often have knotholes, or cracks in the crotches which will extend for some distance into the trunks. These knot holes or cracks are always favorite places for the hibernation of the codling moth larvae. Often a great amount of good can be accomplished by filling such places with cement or other material that will prevent the worms from getting within.

Such places often tend to hold the worms back in their development in the spring of the year. This is a disadvantage in that it tends to string out the brood, thus making it much harder to control by means of the first spray. If all the worms would develop into moths at approximately the same time in the beginning of the season, it would not then be hard to control them absolutely by means of the first spray, but when many of them, because of hibernating in cool places within the trunk of the tree, are held back until two or three weeks later than the



Great Opinions of Labor.

Selected Especially for Green's Fruit Grower.

By Frank I. Hanson, South Boston, Mass.

Genius begins great works, labor alone finishes them.—Joubert.

Virtue's guard is Labor, ease her sleep.—Tasso.

The labour of the righteous tendeth to life; the fruit of the wicked to sin.—New Testament.

From labor there shall come forth rest.—Longfellow.

A noble work, and its mission is not a failure.—Emily Selinger.

Better a death when work is done than earth's most favored birth.—George MacDonald.

Labor, wide as the Earth, has its summit in Heaven.—Carlyle.

Work—and pure slumbers shall wait on thy pillow.—Francis S. Osgood.

We enjoy ourselves only in our work, our doing; and our best doing is our best enjoyment.—Jacobi.

All true work is sacred; in all true work, were it but hand-labor, there is something of divineness.—Carlyle.

Labor is discovered to be the grand conqueror, enriching and building up nations more surely than the proudest battles.—Channing.

As steady application to work is the healthiest training for every individual, so it is the best discipline of a state. Honorable industry always travels the same road with enjoyment and duty, and progress is altogether impossible without it.—Samuel Smiles.

Remove Old Bark.

Old bark, which always proves a fine hiding place for the larvae of the codling moth, should be removed from the trees, says Western Farmer.

There are a number of tools that may be used in removing the loose bark from the

first of the brood develop, it is impossible to meet with the best results from this one spray.

Plant Trees.

We have been talking about trees for a long while. We all know that they are not only an adornment to the farm premises, but they have also practical value not only for their wood, but for their shelter from the winds, and shade from the burning sun, says Farm Press.

Now is the time to plant them. If they be fruit trees, each locality has its favored varieties, and you should know them and plant only such as are adaptable. If it is wind breaks and shade, you should know that the government experiments have proved that White Pine, Norway Spruce, Austrian and Scotch Pines and American Arborvitae have no superiors. These kinds grow rapidly and are not lacking in vigor or adaptability to thin soils, exposed situations and other adverse conditions. But do not plant evergreens exclusively about the home. Deciduous trees occupy a place in any scheme for farm improvement, which the evergreens alone do not and cannot fill. Hard or Soft Maples, Elder, Elm, where they are suitable, should not be overlooked. If you want fence posts for the future, Locusts or Eucalyptus are the proper caper.

Where the Black Walnut will grow, don't neglect to get a peck of nuts this fall, if you have to send far away for them; stick them in the ground, let the frost of winter burst their shells, and give your children a legacy for which they will thank you long before they are old men and women.

Is death the last sleep? No, it is the final awakening.—Walter Scott. Intemperance is the mother of disease.—Burton.

WATER IN THE HOUSE



Give Your House and Barns a Complete Water Supply

Save your time, strength and hundreds of steps by having running water (under pressure) in wagon-house, barn, cow stable, barnyard. The convenience will pay for it—or cows' extra milk will pay for it. Put it in the kitchen and make washing and cooking and cleaning easier for the women folks. Have the convenience (almost a necessity) of a bathroom.

Goulds Reliable Pumps

A Gould Pyramid Pump provides a complete water supply and fire protection at reasonable cost.

It gives you all the water you want—16 buckets a minute. The "Pyramid" is the highest type of power pump for farm use. It is suitable for gasoline engine or electric drive. Perfectly made, strong and durable.

Read all about it in our Free Book

"Water Supply for the Home"

Tells about our other pumps (we have over 300 kinds) for every service, also our hydraulic rams. Tells how to select and install the right pump for what you want to do and to best meet your conditions. Send for it and see how valuable it is to you.

The Goulds Mfg. Company

43 W. Fall Street

Seneca Falls N. Y.

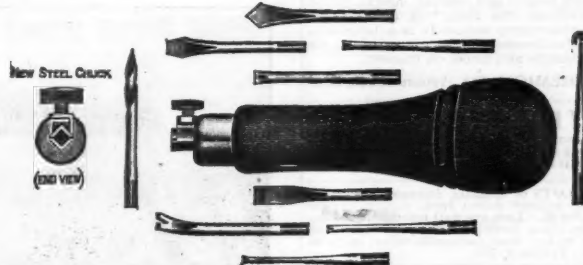
"Largest Manufacturers of Pumps for Every Service."

Ask for the Book

WATER IN THE BARN

THE NEW HANDY SET OF TOOLS

Every house, every barn, every shop, every man, every boy, every house wife, indeed almost every person needs a set of these handy tools. The new firm grip is a valuable improvement on the old style.



The illustration shows the tools much smaller than they really are. Think of the things you can do with a set of these tools. The whole ten tools go inside the handle and are always ready.

How to get the complete set. Send us four new yearly subscribers to Green's Fruit Grower at thirty-five cents each and we will send you the whole set in a box complete ready to use, all charges prepaid to your door.

GREEN'S FRUIT GROWER COMPANY

ROCHESTER, N. Y.

My Chatham Mill

Grain Grader and Cleaner

Loaned free for 30 days—no money down—freight prepaid—cash or credit. It grades, cleans and separates wheat, oats, corn, barley, flax, clover, timothy, etc. Takes cockle, wild oats, tame oats, smut, etc., from seed wheat; any mixture from flax. Sorts corn for drop planter. Rids clover of buckhorn. Takes out all dust, dirt, chaff and noxious weeds from timothy. Removes foul weed seed and all the damaged, shrunken, cracked or feeble kernels from any grain. Handles up to 50 bushels per hour. Gas power or hand power. Easiest running mill on earth. Over 250,000 in use in U. S. and Canada. Postal brings low-price buy-on-time proposition and latest Catalog. I will loan 500 machines. "First come, first served." Write today if you want to be one of the lucky 500. Ask for Booklet 13.

Cash or On Time



THE MANSON CAMPBELL COMPANY, Detroit, Kansas City, Minneapolis

KEES FRUIT PICKER



Gathers Apples, Peaches, Pears, etc. easily and safely. No need to climb trees. No risk of injury. Fruit drops into cloth bag, which can be seen before lowering. Ask your dealer or send to us. Price complete, \$2.00. In full, \$3.00. Will do 500 bushels of fruit. Circular sent on request. F. B. KEES MFG. CO., Buffalo, N.Y. Address Box 240.

AGENTS STEADY INCOME \$3 TO \$5 A DAY

Selling Guaranteed Shoes
Every pair guaranteed one year or new pair free. Flexible Soles. Rubber Heels. Cushion inner soles. You make 50 cents profit on every sale. Fine chance to build up a permanent business. Big profits in it for you. Make sales every day in the year. You take no risk. We carry the stock. We guarantee the fit. Any man or woman can take orders. Outlets include simple device for taking measure. Write quick for this brand new proposition. Don't send any money. A postal will give you all information. **THOMAS SHOE CO., 2170 Barry St. Dayton, O.**

GIVEN BOYS AIR RIFLE

This dandy rifle free for selling 20 pgs. Art Booklets and Post Cards at 10¢ pkgs. Order today. When paid, send \$2.00 and get rifle at once. **GATES MFG CO., Dept. R13, CHICAGO**

I WANT TO SAVE YOU \$10 TO \$20 PER 100 ON YOUR TREES

I have no solicitors, no agents, no canvassers. My catalog is my only salesman. I have no heavy salesman's expenses or commissions to pay. All this saving is given to the customer.

GREEN'S TREES

Are known everywhere for their growing qualities. True to name, hardy, free from scale, bear most delicious fruits. Established 33 years. Capital \$100,000. **You Get Best Trees Grown.** Send for my complete 1912 catalog. It has valuable information for you. Send now and I will give you my illustrated book—'How Made the Old Farm Pay.' **GREEN'S NURSERY CO., Box 91, Rochester, N.Y.**

24 BULBS FOR 10c. Together with a Complete Treatise on the Culture of Hardy Bulbs both indoors and out, and our beautiful Catalogue—**ALL FOR 10 CENTS.** These 24 Bulbs, each of 8 different kinds, will make beautiful pots of flowers for winter or lovely early spring flowers for the garden. Plants now. Our Catalogue of Hyacinths, Tulips, Narcissus, Lilacs, Hardy Plants and rare winter-blooming plants free to all. **John Lewis Childs, Floral Park, N.Y.**

GOVERNMENT Positions are easy to get. My free booklet X-37 tells how. Write today. **EARL HOPKINS, Washington, D. C.**

ENTOMOID

THE UNIVERSAL SPRAY

For scale, all soft bodied and sucking insects, is the spray that "Delivers the Fruit" in quality and quantity as no other spray can. It is a fungicide, too. Highest effectiveness and lowest price are its great points. Sample and prices on request. **ENTOMOID CHEMICAL CO., Woonsocket, R. I.**

CURIOSITY BOX FREE For only 2 two-cent stamps, I'll send you 10 Beautiful Souvenir Cards and tell you how to get my big surprise Curiosity Box Free. Write me today. **R. W. HUNT, Room 75 501 Plymouth St., Chicago, Ill.**

FULL BARREL LOTS of slightly damaged stoneware shipped to any address direct from pottery at New Brighton, Pa., for \$1. Lots are well assorted, containing crocks, jars, pans, bowls, pitchers, tea and bean pots, a little of each. Send cash with order; write us **E. Swasey & Co., Portland, Me.**

When writing to advertisers who use this magazine **PLEASE** mention that you saw their advertisement in **GREEN'S FRUIT GROWER**

Saw Mills, Shingle Mills, Corn Mills, Water Wheels, Gasoline and Steam Engines, Motor Trucks. Write, stating what is wanted. **DeLoach Mfg. Co., Box 526, Atlanta, Ga.**

GINSENG Raising has made me thousands of dollars on very little capital and my spare time. It will do the same for you. I'll teach you free and buy all you raise. Worth \$6 a lb. now. Yields about 5000 lbs. to the acre. Write for my easy natural method. **T. H. Sutton, 325 Sherwood Ave., Louisville, Ky.**

OUR NEW OFFER

Outfit for Tinting Post Cards consisting of 10 Cards, Brush and Paints mailed for 25c, 100 Cards assorted for 80c. 10 Halloween, Thanksgiving or Birthday Post Cards, 10c. 30 Cards, 25c.; 100 Cards, 80c. Special assortment of Birthday or Remembrance Cards 100 for 60c. **Madison Art Company, Madison, Conn.**

Wheat the Most Important Crop on Earth.

We do not know much about the origin of wheat. We do not know when it originated or by whom, but it can be traced back thousands of years. It has been found in the tombs of the Egyptians and in the burned bread of the early races who lived long before the birth of Christ.

No one now would feel justified in calling a field of wheat a field of grass, but wheat is in fact a true grass. This is a well established fact. Thousands of years ago this grass which we now call wheat showed a tendency to develop a few seeds. These seeds were found edible by bird, beast and early man, thus they were gathered, eaten and planted. This wonderful grass showed a marked tendency to improve in productiveness and vigor, thus after the lapse of hundreds or thousands of years

corn is a wholesome and economic food for man as well as beast. There are over a thousand different varieties of wheat, two hundred fifty of which are of value to American wheat growers. **C. A. Green.**

Honesty.

Written for Green's Fruit Grower By Mrs. Hackett, Wis.

When the business of the world requires the handling of money in every transaction, and almost every responsible position requires the handling of other people's money, then it is well if we teach the children to expect this, and let them become accustomed to the handling of small amounts just as soon as they are able to understand its use.

One day four-year-old Joe came running in from play, and said "Mama I want a penny, I told Johnnie I would give him

the cash that he is putting into these things, he has put in other things, time, health, and strength of will, which are worth to him infinitely more.

The child should be taught the use of money, and how to get its value when spending it, too often, they know nothing of this until it becomes a necessity to them, then they are at a loss, they never have had the chance or practice of handling the cash, and the only thing that they really know, is that its spending would bring to them many things which they would like to have. Often this is the first step in dishonesty, the temptation proving in its very newness a little too much for their will power.

No child is perfect, and no character is strong, but that which is built up out of little things, every day the world is changing, and the child is laying the foundation today for the character of tomorrow, help him, if he fails, try him again, if he fails again try a different plan, often failure is needed for the lesson it brings, do not say "he will learn easier when he is older," that is not so, and when he goes among strangers he will not be judged for what he can learn, but simply for what he is, and what that is, it is your business to know, not by guesswork but by actual proof.

No one has a better chance, or a better right to know their children than their parents, and they are the ones most interested and the most responsible.

Make the Most of Your Water Supply.

Lucky is the farmer who has an abundant water supply and knows how to get the full benefit of it, but every water supply, no matter how meager has possibilities of development and its owner should make the most of it. In greater or lesser degree he can have the conveniences which form a large part of the benefit of city life.

Water on tap in the house, barn, dairy, yard, stable, means hours of labor saved in all kind of work.

Making the most of the water supply means more the expenditure of brains than money, and everyone welcomes the suggestion and practical ideas which experienced water supply engineers can give. Every farmer will, on this account, be glad to read "Water Supply for the Country Home," a new booklet just issued by the Goulds Manufacturing Company.

This book divides the subject of water supply into hand, windmill, power and hydraulic ram operated systems. Under each division it takes care of both deep and shallow well conditions. There is also an interesting and instructive chapter on the sources of water and the different types of wells.

A very valuable part of this book is the section on the daily amount of water needed by each person and animal, and the important points that must be considered in selecting a pumping equipment.

There is valuable information in this booklet of which every farmer can make good use. We suggest that readers write for a copy at once. Address The Goulds Manufacturing Company, Seneca Falls, N. Y.

Man the Weaver of His Own Destiny.

Written for Green's Fruit Grower By W. Scott Haskell.

Choosing is a mental process that belongs solely to the individual; and no external force, men, or bodies of men, can take it from him. That faculty of the human mind is the fashioning ego, and is as deep and far-reaching as life. Through choosing man becomes the progenitor of his every condition, the weaver of his destiny. Because you are not entirely satisfied with present conditions, and are constantly wishing for a change to something more congenial; does not necessarily indicate that you were forced into present conditions against your will. It only indicates that your mind goes out beyond present attainments, and does not prove that you are irresponsible as regards your life distribution. Sometime and somewhere in your past life, your ideals were not up to present standard, and by the exercise of thought on ideals, you brought about your present condition either directly or indirectly.

Too many of us waste our energies blaming the other fellow. He is working out his destiny also, and if we clash, it is because we have invited it by our attitude and choosing. We are not always conscious of our choosing, but choose blindly, shut our eyes to certain things while in pursuit of others. For instance, we start to coast down a hill unmindful of the stumps and snags that we are liable to run into. If we had investigated, chosen with our eyes open, we would have escaped disaster. We blame the sled, the stump that we ran into, and everything else but ourselves with our lack of forethought, our blind choosing. Right choice, the right road to the goal. Choice being a mental state, we should cultivate the mental, and cease trusting to luck.



This wheat was grown on the farm of Glen R. Zook, Mich.

it was given the name of wheat, and many varieties were discovered or produced. These varieties of wheat differed much in character of growth, in size and color of berry, in texture, and in those desirable features that are required for the making of the best pastries or bread.

Some of the varieties must be planted in the fall and would not be productive if sown in the spring, while other varieties would not succeed if sown in the fall and succeed only when sown in early spring. In Dakota and other northwestern localities it is the spring wheat which is grown almost exclusively, whereas in the eastern states the winter wheat only is grown. I have never seen a successful field of spring wheat growing in the eastern states.

The acreage of wheat in this country in 1911 was 621,338,000 bushels from 52,124,000 acres. This country produces more

one if he would play with me." "Well," said the mother, "I do not know that you have any pennies, your father is in the garden, go to him, I do not think that he has pennies to give away, but perhaps he can tell you how you can earn one."

Growing older he had some money of his own, generally given to him but often earned by running errands, etc. Out of this he is expected to buy his own tablets and help with his school expenses, such as helping the other scholars with any gift to be purchased, or in buying the extra pamphlets that are in use in many schools.

In the meantime, any larger amount is generally paid by his parents. But as far as possible, the little expense money of regular use passes through his hands, and the sight and handling of other money is familiar to him, as he often is given the spending of larger amounts for different



A Western New York wheat field.

wheat than any other country in the world. American wheat goes to the ends of the earth to feed people who cannot produce this grain themselves.

There was a time when Western New York was the great wheat producing section of the United States, and when Rochester, N. Y., was known as the Flour City, having the greatest flour mills in the world at that time. Of late years the production of wheat has been moved west rapidly so that it will be difficult today to state where the center of wheat growing of the country is located, but it is doubtless west of Minnesota.

There are two classes of grain which are close rivals of wheat. One of these is rice and the other corn. Rice is the principal food of the Asiatics. Corn has not been used extensively as food for the human family outside of America, but European and other countries are fast learning that

persons. In regard to candy and such things the use of this money is not forbidden, but it is not encouraged. We believe that the right spending of well earned money means a certain amount of pleasure along with other expenses.

Of course, with other children, or under different conditions this way of planning might not work, but for this time it has proved worth trying.

Once I had an experience with a boy, earning and spending his first money, that is, of any amount, he was seventeen years of age, but knew as little of money and its values as some smaller children do. He would buy candy or fruit and eat until he was ill, just because he had never had the chance to have these things or the money to buy them.

Often, with boys, this is where the liquor and tobacco habits get their hold, and before a boy has learned the value of even

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AUNT HANNAH'S REPLIES

He Wants to Know How to Make Love.

I have a letter from a young man who says he is in love with a girl about his own age who attends his church. She is attractive and a fine musician. He has never called upon her nor solicited her company in any way for fear his advances might be rejected. The young lady is not receiving the attentions of any other man. He asks Aunt Hannah what he should do and whether he should explain the situation to the girl. In other words this young man does not seem to know anything about lovemaking and desires to be informed.

Aunt Hannah's Reply: I have heard of a tender hearted clergyman who has proposed a school in which young people should be taught about courtship and marriage. I am not sure but that this might be a worthy and helpful movement. It would seem from this letter and from other observations of mine that there are many men, some young and some older, who do not seem to know how to pay their addresses to a young lady with a view to marriage.

Courtship is a series of attentions paid by a man to a girl to whom he is attracted. These attentions should not be so frequent or persistent or so long drawn out as to embarrass or alarm the lady. Such attentions should be quiet and orderly, very much such attentions as any young man might give to any young lady whether he was particularly interested in her or not. He could call at her house in the evening or ask to be her escort from church or he could invite her to some lecture or concert, provided he has been introduced to her. If he has not been introduced, the first thing to do is to get a friend who knows both the individuals to introduce the young man. At the end of a few months after several calls have been made and several drives have been taken and several entertainments have been enjoyed together, the father and mother of the girl and the girl herself may have reason to suspect that the young man has serious intentions, but they will not make it known in any way. No man has any right to pay attentions such as I have mentioned for a long period unless he has a serious attachment for the girl and intends to propose marriage.

Most young men are too hasty in their courtship. I would caution you not to be hasty but to take plenty of time to learn all you can about the girl and give her an opportunity to learn all she can about you, so that at the end of a year or two you may propose marriage and learn precisely how the young lady feels toward you.

There is an old saying that "Faint heart never won fair lady." This is not true for I know of faint hearts that have won brilliant wives. This young man seems to be faint hearted. My advice is that you brace up and go ahead but do not go to the other extreme of being too hasty and precipitous.

Is His Life A Failure?

A man past middle life says that he feels that he is and has been qualified to occupy high positions of trust but that he has never been invited to be a candidate for office, has never been seated in a position of honor, has never been placed in the spotlight upon any stage, has not been made the hero of any event or occasion. He has led a clean life, his conscience is clear, he has provided for his family, he is neither rich nor poor, has brought up and educated his children.

Aunt Hannah's Reply: No man or woman is a failure who has performed fairly well the duties assigned him by Providence, by his fellows, his family, or the various circumstances under which he has been placed throughout the years of his life.

This man should remember that there are few calls to be governor of a state, attorney general, congressman, senator, or president of the United States. The surprise is that when the call does come for men of ability to supply positions of trust, wherein the person called is expected to be the public servant, that so many men are ready to accept the call. There are myriads of competent men who could not accept such a call for public service for the reason that they have already found their work, and this work which they have found demands all of their strength, time and ability. Here is one reason why the best men are not called into public service. It is well known that they could not accept if called. Furthermore, public service calls for peculiar fitness other than ability to perform the service. There are candidates on the field now for president of the United States who, though men of high ability

and rare talent, have not sufficient flexibility, tact and, I hesitate to remark, elasticity of conscience, which seems to be necessary in order to weather the storm that comes to every presidential candidate.

I have not the highest esteem for the man who is always seeking office or seeking promotion outside of his own affairs. I have a high appreciation of the man who has made a place for himself in the affairs of the world, and who is not dependant upon any party or any clique, which he may desire to boost him into political preferment.

No man or woman who has successfully reared a family and established a happy home, who has educated his children and started them wisely on the voyage of life, who has been a peaceful citizen, desiring and working for the common good of humanity, should consider himself or herself a failure even though on his or her return from a long journey they are not received at the depot by a brass band and a display of fireworks.

Carnegie has set aside a fund to be used to reward heroes or heroines, people who have risked their lives to save life, or who have performed other heroic deeds. Do not suppose for a moment that the greatest heroes or heroines of the world will be discovered by those in charge of this hero fund. The true heroes and heroines of life are those who have died in obscurity, whose notable acts have been unknown to their fellows.

Hair Preserver, Etc.

Dear Aunt Hannah: 1. How long should a young man go with a girl before getting her jewelry, such as rings, lockets and chain, for a present?

2. What is the first thing in order to present her with, and how long after

starting to go with her should it be given? 3. What relation are children of half sisters? That is sisters from the same mother but of different fathers, being of different nationality, the one being dead when the other married his wife. Would these children be permitted to marry?

4. In what states are cousins permitted to marry each other?

5. What is the best book on "American Etiquette" you know of?

6. What is the best treatment you know of to stop hair falling from the scalp? Do you know of anything to cause it to grow in again? C. F. K.

Aunt Hannah's Reply: 1. I am not in favor of making presents to girls before an engagement of marriage unless the present is something like flowers or fruit. I cannot think a present of jewelry would greatly attract a young lady or induce her to marry.

2. I would suggest a gift of flowers.

3. I think the children of half-sisters would be called half-cousins and that they would be permitted to marry in most of the states.

4. I think cousins are allowed to marry in New York state. I do not know what the laws of other states are on this subject I do not advise the marriage of cousins.

5. I do not know what is considered the best book on American Etiquette. I do not consider such books of great importance, though it is well to be informed on manners.

6. I attach a valuable recipe that I have tested and found helpful and harmless for the hair:

RECIPE FOR PREVENTING HAIR FROM FALLING.

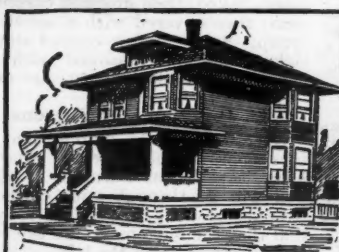
This is a harmless formula and gives the head a cool and cleanly feeling. The

Going to Build?



If you are going to build, remodel or repair you can't afford to be without our big new Catalog of Millwork and Building Material. It's the most complete, most exhaustive book of its kind ever published. 3,000 superb illustrations and 8,000 dollar-saving prices on brand new, up-to-the minute building material of all kinds. Not a stick of wreckage or second-hand stuff. Everything fresh and new. Why should YOU pay your local dealer 25% to 33 1/3% more for no better if as good lumber, millwork and building material as we ship to you DIRECT? We have everything in lumber, flooring, doors, windows, mouldings, porchwork, building paper, hardware, tinwork, roofing, paint—every item needed to build the finest kind of a home, barn, garage or outbuilding. Our Free Plan Book shows splendid views and floor plans of 50 beautiful modern houses and barns, prices ranging from \$360 to \$6,000. Shows you how to actually save about half what you expected to pay. Send for your copy today. We'll tell you how to secure FREE expensive plans, working drawings, specifications and list of materials. Just fill in the coupon now.

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Perfect guaranteed house paint—single gallon cans only \$1.25
We have all kinds of paint at wholesale prices.

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7 light building hardware. You can't beat our goods. 25c or our whole lot sale prices. Barn Sash Outside Lock 41c Sets, 21c up.

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Clear Lattice
Oak to cover one sq. ft. 12c
33c Per 100 ft.
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Porch Spindles 1c
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Clear Fir Turned Post 4 x 4, 8 Ft. 50c
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Porch Newel 4 x 4 30c
Porch Bracket 6c
OAK FLOORING—Per Square Foot 5c
Angle Newel \$1.60

tendency is to remove dandruff and to renew health and vigor in the scalp. The recipe is as follows:

1 ounce tincture cantharides, 1 ounce glycerine, 3 ounces alcohol, 8 ounces rain-water. Apply once a week, wet the scalp well, rubbing thoroughly.

Almost any druggist can prepare it for you. This prescription as prepared by the druggist makes nearly one quart.

I give below a recipe for turning grayish hair to natural color, which are being used in our family and have proved effective, the first is the most simple and is probably as good as the other.

4 ounces bay rum, 2 ounces rock sulphur. The sulphur will not all dissolve. Shake each time used. Apply twice a week.

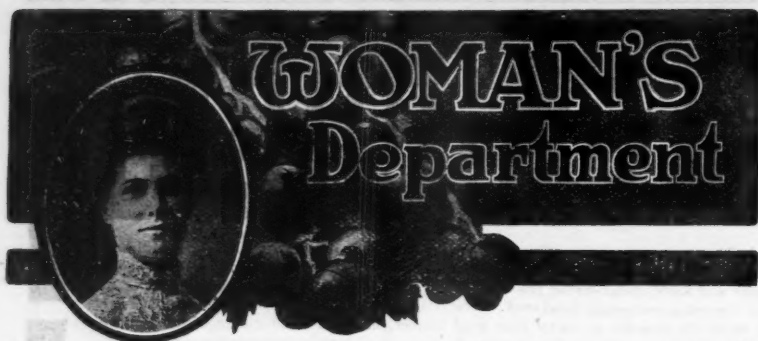
A Great Man's Advice to a Boy.

The great Cardinal Richelieu placed in the hands of a young lad an important work to be performed.

"I will try sir" replied the boy "but supposing I should fail?"

"Let me say to you my lad" replied the crafty cardinal "that in the bright lexicon of youth there is no such word as fail."

Note by C. A. Green: The above is good but somewhat poetic rather than realistic for there is such a word as FAIL both for the young and the old. There is much of failure in this world. It has been claimed that there are few business men who have escaped financial failure in their early days, but the early failures have taught lessons which lead finally to victory and success. It is my opinion that the young man of the present day is too hopeful of the future and is too confident of success and does not sufficiently consider the question of possible failure.



Household Notes.

Tooth powder is excellent for cleaning jewelry. Rub it on with a nail brush and then rinse off with scalding water.

When a window is difficult to raise, pour a little melted lard between the frame and casing and put a little, also, on the cord.

There should be three pairs of scissors in the kitchen, one for dicing vegetables, one for trimming fish and one for general use.

Thinly-sliced bananas moistened with mayonnaise and placed between buttered slices of bread make excellent school sandwiches.

To keep a hat on straight with thin hair place a small piece of tulle or veiling across the top of the head before pinning on the hat.

Grind a handful of sunflower seeds and give them to the canary. The birds relish the little tender pieces that are found among the seeds.

An effective scarf for a hall table may be made of linen crash with a figure embroidered on each end and of the same design as the paper on the wall.

An excellent household remedy for burns is olive oil or vaseline. The great thing is to exclude the air from the burned surface, and this the oil will do.

For washing windows, which should be done when the sun is not shining on them, use warm water with a tablespoonful of kerosene added to each pail of water.

Take old net curtains (fishnet will do) and dip them in a tubful of soapy water then in a tub containing a solution of 10 cents' worth of copperas. Repeat and hang up to dry. The result will be a beautiful deep burnt orange color, which gives a sunset effect in the darkest room.

To keep flies from the house dip a sponge in boiling water and place it in a saucer. Pour on this half a teaspoonful of oil of lavender, which for some reason or other is very obnoxious to flies. The sponge requires moistening with boiling water about twice a day, with oil about once a week.

Post Toasties

—the most winning cereal
That has yet appeared on the
American breakfast table.
Golden-brown, crisp bits of
Indian corn,
Perfectly cooked and toasted,
ready to serve direct
From the package with
cream.
Not yet approached in
Tempting flavour and
Appetizing nourishment;
One doesn't forget the
"toastie" flavour—
"The Memory Lingers"
Sold by grocers in 10 and
15c packages.

Made by Pure Food Factories
Postum Cereal Company, Ltd.
Battle Creek, Mich.

When a slice or two of bread is left from a meal do not put into the bread box to be forgotten, but cover over in a dish and use for toast at the next meal.

Your sewing machine will last longer and run more easily if, especially after working on woolen goods, you clean out the feed plate. Take out the screw that holds it down and lift it off; then, with a long pin, pick out the lint and clean the needle slot.

When, after much service, a broom becomes shorter on one side than the other, and the ends of the straws as sharp as needles, dip it in hot water, and trim it down quite evenly with the shears. The result will be a broom as serviceable as when new.

Did you ever try applying a mixture of epsom salts and vinegar to bathroom windows or others to which you wish to give a frosted appearance? To make the frosting permanent give it a coat of white varnish after it is dry.

After having a very handsome piece of furniture badly scarred because a visitor rocked against it, I turned my rug so that the nap runs in the opposite direction. Now the chairs move more away from the furniture and there have been no more such accidents.

To sweeten jars and cans which have contained tobacco, onions, or anything else of strong odor, wash the article clean then fill it with fresh garden earth, cover it and let it stand for twenty-four hours. Then wash it and dry it, and it will be quite sweet and fit for use.

Using a warm iron when cutting out clothing will do away with pins and weights on tissue paper patterns. Lay the pattern on the material and press it lightly with a warm iron. It will adhere to the cloth.

Salt as a Tonic.

If food is tasteless without salt, it is ruined with too much. Unappetizing cooking is often due to guesswork. A level teaspoonful of salt is sufficient for a quart of soup, sauce, or vegetables. Salt used once a day is an excellent dentifrice, tending to keep off tartar. It is said to retard receding gums.

A half teaspoonful of salt added to a cup of hot water—which many persons take each morning—will make it palatable.

Do not gargle with salt water. Throat specialists consider it injurious to the tender mucous membrane of the nose.

Salt water rots the hair, so never fail to rinse with fresh water after sea bathing.

To set the color in wash materials and embroidery cottons soak them in strong salt water.

An excellent tonic for nervous people is to take salt rubs twice a day. As sea salt dissolves slowly, some of it can be kept in solution in a glass jar to be ready when needed. The entire salt bath is also good.

Where a child is inclined to bow legs or to have a weak back, rub it night and morning with strong salt water.

A faded carpet is freshened if wiped off with a wet cloth wrung from strong salt water. Sprinkle floor with dampened salt and sweep well.

Bad dyspepsia can be helped by dissolving pinches of salt on the tongue after eating, or when there is a sense of oppression.

Misspent Energy.

A woman should make it a rule never to stand at any task that she can do just as well sitting, says the "Woman's World." For instance, why stand up when you peel potatoes, shell peas, or hull berries? Why stand when you "do" your hair? You are simply using up strength that should be saved for more important matters.

Again, you may waste strength by taking unnecessary steps. This is peculiarly likely to be the case when you have to go up and down stairs a great deal. A little thought and care will save you a good many toilsome climbs. When you have

to go up stairs for something, think up several other errands that may require your presence on the upper floor, and contrive to do them all in one trip.

Speaking of going up stairs, do you know that most people perform this feat in the most toilsome manner possible? They bend from the waist, thus cramping up their chests until they cannot get a free breath. Then they laboriously haul themselves up by clinging to the bannister, dragging their feet uselessly after them, and putting the whole strain of the climb on their backs.

In preparing to go up stairs, stand perfectly erect, throwing out the chest. Keep away from the bannister. Lift the feet, bending the knees freely. Let the knees do all the work.

Sweet apples, pared, quartered and cored, stewed slowly in canned grape juice make a compound very like cider apple sauce, and quite as good. It is a pleasing change from canned and dried fruit. Sweet apples can be cored with an apple corer, baked, then dropped carefully into cans; then covered with a sweet, boiling syrup. Sweet apples, cooked slowly in a rich syrup and seasoned with a little lemon and vanilla extract, are delicious.

Difference in Buttons.

Buttons make the supreme and mysterious separation of the sexes. And buttonholes, says Texas Farmer. If as a man you will go through your clothes, from overcoat to the underclothes, you will find that the buttons are on the right and the buttonholes on the left.

But you will notice that the feminine garments close up the other way, and that the woman demands her buttonhole to correspond. Feminine clothes fold from right to left, masculine from left to right. And there the problem must be left by a puzzled commentator.

Should Women Propose?

Ever since this conundrum was put to me, I have been submitting it to everybody I met, says Harper's Bazar. There has been extraordinary diversity in the answers. They have run from a shocked, "No! No! No!" through a hesitating, "Well, I don't see why—and yet I could never do it myself," to a decided, "Yes, certainly! Why not?"

One woman said: "Under no circumstances. Nothing ever justifies us in forgetting our womanliness." Another: "Yes, indeed. In fact, I proposed to my husband. I saw that he was in love with me, but that he thought that we could not afford to be married. I knew that we could, and so I proposed to him." Another: "Of course women should propose. They are much better judges of character than men, more intuitive and spiritual." Another: "If women proposed, there would be fewer unhappy marriages. As things are, men can choose from their entire set of women. Women can choose only from those who propose to them. If women proposed, more of them would marry the man they really wanted to marry."

An Unreasonable Woman.

Although much has been said and written on the subject, we do not yet realize how desperately lonely a woman can be in a thinly settled farming community, says Youth's Companion. Probably no one can ever realize it except the woman herself.

They had taken Seth Hodgskins' wife to the state insane asylum. The day after she left him, Seth—who had been a good husband to her from the date of her tin wedding anniversary to the date of her silver wedding anniversary—and through all the intervening anniversaries—which there had been no parties to celebrate—received a visit of condolence from his nearest neighbor, two miles away.

Seth turned from a sink piled high with dirty dishes to clear a chair for his guest. "I shall have to hire more help. It seems as if she had been gone a year," he said.

"I always supposed that Harriet enjoyed good health," said the sympathizing friend.

Harriet Hodgskins' husband looked in dazed and futile inquiry from the sprawly pattern on the bright new oil cloth that she had bought with the carefully saved egg money to the view from the kitchen window, a wide, snowy field, some tall, funeral evergreen trees, and a patch of darkening sky. The kitchen did not face the road.

"I can not understand," he said, "what ailed Harriet. She has hardly been out of this kitchen for fifteen years."

Carpets.—After shaking, spread out and sweep with clean broom dipped in soft water and ox-gall, three gallons of water to one pint of ox-gall. Or wipe the carpet as it lies on the floor, after sweeping well, with a cloth wrung out of above solution. ammonia may be used if preferred.

This Washer Must Pay for Itself

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse. But, I didn't know anything about horses much. And I didn't know the man very well either.

So I told him I wanted to try the horse for a month. He said "All right, but pay me first, and I'll give you back your money if the horse isn't all right." Well, I didn't like that. I was afraid the horse wasn't "all right" and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse although I wanted it badly. Now this set me thinking.

You see I make Washing Machines—the "1900 Gravity" Washer.

And I said to myself, lots of people may think about my Washing Machines as I thought about the horse, and about the man who owned it.

But I'd never know, because they wouldn't write and tell me. You see I saw my Washing Machines by mail. I have sold over half a million that way.

So, thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse.

Now, I know what our "1900 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than half the time they can be washed by hand or by any other machine. It will wash a tub full of very dirty clothes in six minutes. I know no other machine ever invented can do that, without wearing out the clothes.

Our "1900 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it doesn't wear the clothes, fray the edges nor break buttons the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might.

So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time. Let me send you a "1900 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and pay the freight too. Surely that is fair enough, isn't it?

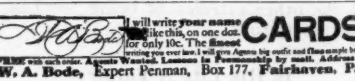
Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is? And you can pay me out of what it saves for you. It will save its whole cost in a few months, in wear and tear on the clothes alone. And then it will save 50 cents to 75 cents a week over that in washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 50 cents a week till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line to-day, and let me send you a book about the "1900 Gravity" Washer that washes clothes in 6 minutes.

Address me this way—H. L. Barker, 738 Court Street, Binghamton, N. Y. If you live in Canada, address 1900 Washer Co., 357 Yonge St., Toronto, Ont.



PARKER'S HAIR BALM
Cleanses and beautifies the hair. Promotes a luxuriant growth. Never Falls Out. Restores Gray Hair to its Youthful Color. Prevents hair falling. 50c. and \$1.00 at Druggists.



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FREE THE EZY-HEM SKIRT GAUGE

Indispensable to the Well Dressed Woman



hem, thus reducing the work of measuring, marking and turning to a minimum. It prevents expensive mistakes, saves time, work, worry and more than its cost on the first skirt made. It is made of nicely polished, nickel plated steel and will last a lifetime. It is also an excellent chalk marker.

DIRECTIONS—Set gauge on the floor so that the skirt will fall over the long wire. Markers will come under on inside of the skirt. Fold the goods under, so that the long wire will come inside the fold, as shown in illustration No. 1 and pin the hem in place. Slide the gauge along and repeat. The Ezy-Hem can easily be used as a chalk marker also. Place the gauge with the long wire finger outside and against the goods, and simply draw chalk along the wire lengthwise, using the wire as guide or rule.

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Send one year's subscription—new, renewal or extension—and this splendid gauge—easily worth 50c.—is yours without cost. Send subscription now before you forget it—only 50c.—and while we can furnish the gauge. Address:

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Patterns for Women Who Sew.

- 5112—Ladies' Waist Lining. Cut in 8 sizes, 32 to 46 inches bust measure. Size 36 requires 2½ yards of 27-inch material. Price 10 cents.
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- 5948—Ladies' Two-Piece Skirt. Cut in 5 sizes, 22 to 30 inches waist measure. Size 24 measures 2 yards around lower edge and needs 3½ yards 50-inch goods. Price 10 cents.
- 4847—Boys' Russian Blouse Suit. Cut in sizes 2, 4 and 6 years. Age 4 requires ¾ yard 27 inches wide. Price 10 cents.
- 4784—Girls' Dress, Closed at Front. Cut in 4 sizes, 6 to 12 years. Age 8 requires ¾ yards of 36-inch goods. Price 10 cents.
- 4682—Ladies' Dressing Sack. Cut in 6 sizes, 32 to 42 inches bust measure. Size 36 requires 2½ yards 36 inches wide; 3 yards insertion, 3¼ yards edging. Price 10 cents.
- 5739—Ladies' Empire Dress, Closed at Front, and Having Five-Gored Skirt. Cut in 6 sizes, 32 to 42 inches bust. Size 36 requires 5¼ yards 36-inch goods, ½ yard 18-inch all-over, 2½ yards Braid. Price 10 cents.
- 4554—Ladies' Four-Gored Circular Skirt. Cut in 6 sizes, 22 to 32 inches, waist measure. For 24 waist it requires 4¼ yards 44 inches wide. Price 10 cents.
- 5951—Children's Coat, With or Without Hood. Cut in sizes 3, 5 and 7 years. Age 3 requires 2 yards 44 inch goods; ½ yard 24-inch silk. Price 10 cents.
- 5947—Boys' Russian Suit. Cut in sizes 2, 4 and 6 years. Age 6 requires 3 yards 36-inch goods; ¾ yard 27-inch contrasting goods. Price 10 cents.
- 4855—Ladies' Seven-Gored Skirt. Cut in sizes 22 to 32 inches waist measure. Size 24 requires 5¼ yards 36 inches wide and measures 3½ yards around lower edge. Price 10 cents.
- 5930—Ladies' Apron or House Dress, Closed at Front. Cut in 6 sizes, 32 to 42 inches bust. Size 36 requires 6½ yards of 27-inch goods. Price 10 cents.

4238—Girls' Bloomers. Cut in 5 sizes, 2 to 10 years. For 6 years it requires 1¾ yards 36 inches wide. Price 10 cents.

2654—Children's Apron. Cut in 11 sizes, 2 to 12 years. For 3 years it requires 2¼ yards 27 inches wide, 2 yards edging. Price 10 cents.

2935—Ladies' Dressing Sack. Cut in 8 sizes, 32 to 46 inches bust. Size 36 requires 3¼ yards 27 inches wide. Price 10 cents.

Order patterns by number and give size in inches. Address Green's Fruit Grower Co., Rochester, N. Y.

"More Light! More Light!"

Fresh air enthusiasts are familiar enough to most of us, but we hear less of enthusiasm for light, says Christian Herald. Darkened parlors, darkened bedrooms, darkened sick-rooms, are too common. Sir B. W. Richardson, the eminent London scientist and physician, declared that when the professor of healing enter a sickroom their first words in most cases ought to be Goethe's dying exclamation: "More light! More light!"

The light of the sun is God's own microbe-killer, germicide, disinfectant, prophylactic, sickness-healer. There is no physician, no chemical antidote, no compounded prescription to be compared with sunlight. Without it nature could not perform her functions.

Man, beast, bird, insect would fall victims to the deadly gases that would prevail. The horrid mists and deadly gases are dispersed and decomposed by the action of light. Let it in, everywhere! Let the light in more and more abundantly.

Faded carpets are not as pitiful as faded cheeks. Spoiled cushions are trivial compared with spoiled health. Darkened rooms are too suggestive of darkened lives.

Furniture.—Good polish is made of one pound melted wax, one pint turpentine, one gill alcohol beaten in at the last. Apply with soft cloth and rub vigorously. White spots are easily removed from furniture by holding over it a moderately hot iron. When quite warm, rub hard with grain of wood.

Do not throw away crusts of bread. Keep all the bits that accumulate in an open receptacle in a dry place. Every once in a while dry in a pan in a slow oven. Then put through the finest part of the meat chopper, fill glass jars and they will be all ready for bread puddings, stuffings for turkey, chicken or lamb and for covering escalloped dishes.

Pineapple Sherbet.

One quart of water, one and one-half pints of sugar, one tablespoonful granulated gelatine, one pint pineapple grated or chopped fine, the juice of two lemons, and one-half pint rich cream.

Soak the gelatine in one-fourth cupful of cold water five minutes. Boil sugar and water together fifteen minutes. Add gelatine, pineapple and lemon juice. Let cool, put in freezer and freeze until it begins to harden, then add the cream, which should be sweetened slightly. Turn the freezer rapidly until done. This is fine.

Worth Knowing.

The most convenient and cheapest of all disinfectants to use in the cellar is quicklime. It may be placed in dishes, in bins or cupboards, or scattered loose in dark damp corners.

Save one or two turkey wings. They are the best brushes in the world to use around a stove, and splendid for sweeping closet shelves. Weight the wing tip with iron until it dries.

Novel sandwiches for afternoon tea are made by mixing cream cheese and shredded salmon steak. The mixture is spread on salt wafers, hot toast or thin buttered slices of rye bread.

To preserve matting cover any floor and keep it perfectly sanitary, go over it first with a damp cloth, let dry thoroughly, and then give it a thin coat of clear varnish.

When the linoleum or floorcloth has been washed and thoroughly dried, make a little starch in a pint basin with boiling water and rub lightly over with a clean cloth. It will dry very brightly, without any further rubbing or polishing, and has the advantage of being glossy without being slippery.

In the Laundry.

To take the leather stains out of my light-colored hose, I add a table-spoon of borax to the water in which they are washed. This quantity is sufficient for only one or two pairs of hose.

Add a small piece of butter the size of a walnut when starch comes to a good boil. This not only gives a nice, smooth finish and makes ironing easier, but it prevents the starch from boiling over.

Try sprinkling your clothes with a corn broom, one that has worn satisfac-

tory. This moistens the clothes much more evenly, and obviates the necessity of dipping the hands into water, which is often very disagreeable. Small pieces, such as handkerchiefs and napkins, may be easily and quickly sprinkled by using a machine oiler filled with water.

Cotton blankets are washed differently from those made of wool. Soap them well with laundry soap, fold and allow to soak in tepid water. Wash them in an hour or so and place in a boiler of hot suds to steam, not boil. Rinse in several waters. Use a very little blueing and dry them double on the line. Press dry on the wrong side. Quite the contrary is the process of washing woolen, for hot water cannot be used in them. Dainty quilts, liable to fade, should first be soaked in a tub of cold water, containing a half cup of turpentine to set the color.

Happy Marriages Can Only Result from Girls Being Taught to be Housekeepers.

Schools to teach girls to become good housewives must be established before the percentage of happy marriages can be increased, according to Mrs. J. B. Caraway, member of the Housewives League and of the House Committee of the Woman's University of Chicago.

"Why is a happy marriage?" said Mrs. Caraway. "First of all, the wife and mother must know her job, but how can she become a combined cook, char-woman, scientist, shopper, accountant and managing director, that is to say, the good housekeeper. Her mother should teach her these things, but in these days of apartment life and servants, frequently the daughters have to go to work as soon as they leave school."

"The solution as I see it, is for the schools and colleges to teach girls the things they will need to use in their homes later on, in place of so many classics that are practically useless to them. Before I was married I had to go to the Armour Institute to learn how to cook."

"A cooking course ought to be compulsory for every college girl. And we ought to reorganize our domestic service on a basis which will attract some of the little girls who go to work at fourteen, so that they will have their share of domestic

drill before they marry. It's the general lack of attention to such training that is at the root of the most home problems.

"I think every wife ought to keep accounts from the very beginning."

Her blonde head poised over a small red note book. Here is my monthly budget: Rent \$100; Groceries \$35; meat \$15; maid \$30; milk \$6; gas \$6; electricity \$5; ice \$5. Multiply that by twelve and you get a yearly budget of \$2,424. Clothing and incidentals added to that bring the total up to \$3,000.

"We have a good deal of company; and provisions are, of course getting higher all the time. But I know my bills would be more than they are if I had made no effort to run my home intelligently. And I am a firm believer in youthful marriages, even if the wife, as well as the husband, has to become a wage earner."

"A failure is usually a small man with big ideas."

High Cost of Living.

"There are in the United States 10,000 men who are making and distributing liquor. This great army is responsible for the high cost of living. Here are 5,000,000 men, women and children dependent upon the liquor business. Who feeds them? The laboring man who last year turned over \$1,000,000 to them; who divided the loaf that should have gone to his family with the families of the liquor men. Then there are 200,000 non-producers in the jails and penitentiaries of the country brought there by liquor. Who feeds them? The overburdened taxpayers. Then there are the men engaged in maintaining the courts and prisons and patrolling the streets to keep the influences of the liquor traffic within decent bounds which with the idle rich, often made criminal by red wine, make up 5,000,000 more. Then there is another side to the problem. Last year the population of the United States increased 21 per cent, but the production of beef cattle only 3 per cent, and this because 106,000,000 bushels of grain that should have been fed to the cattle of the country went toward making liquor.

If this could have been applied to its proper uses the cattle would have increased 21 per cent., and the price of beef been lower.

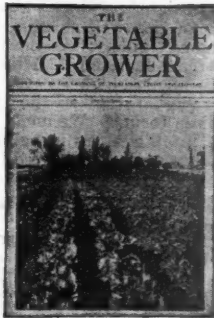
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Pollination of Fruits.

It is generally well understood among fruit growers who set out orchards that the trees set fruit better when more than one variety is planted, says Practical Farmer. Though it may be practically an orchard of but one kind, say of the Bartlett pear, yet a row of some other kind will be of great assistance in the fertilization of the Bartlett or whatever kind it may be. It seems undisputed that any tree prefers the pollen for its flowers from some other tree rather than from its own, and that when no other tree is near it, a single flower will prefer the pollen from another flower rather than use its own. Experiments have been recorded which leave little doubt of this being true. A single flower confined by bagging it to its own pollen failed to set any fruit, or else if it did set, the fruit dropped off in a short time. Fertilized with pollen from other flowers on the same tree the result was better; with pollen from another tree better still, and with pollen from a distinct variety, the best result of all was secured.

It appears, according to this that a single tree of any fruit in one's garden is not likely to fruit as well as if another one was near it, differing in variety if possible, but if not, then if of the same kind would be better than none. For instance, if the first tree be a Bartlett pear, let the second tree be a Seckel or some other sort, but if a different one cannot be had, then let the second one be a Bartlett, too. Often when a single cherry (or other fruit tree) is the only cherry in the orchard it may set some of its fruit, but often a portion of what sets drops off in a few weeks. This is usually because of lack of proper fertilization. It appears undoubtedly that nature abhors self fertilization, instead it prefers that pollen should come from flowers on trees as far removed in relationship from the others as possible.

This demands exists in small fruits as well as in trees; in fact, it holds good in the case of flowering plants as well. It is not at all uncommon for plants in flower gardens to refuse to produce seeds when no other ones of their kind are near them, but which have produced good growing seeds when one or more of their nature were not far away. It follows that where space is limited and fruit trees are desired, say, of apples, that the two should be of different varieties if possible; if not, both may be the same. If a neighbor has trees of apples or other fruits you are about to plant, then there is no need of two of each if the neighbor's trees are not too far away for insects or wind to carry the pollen from the trees on one place to those on the other.

Pruning Trees.

The importance of properly pruning the trees on our streets and about the home is not fully appreciated until one observes the unsightly "docking" practiced by some of our well-meaning citizens, says Farmers Guide. "As the twig is bent so the tree is inclined." This saying, familiar to all, might be recast to read: "As the twigs are cut so the tree is inclined or given form." We mean to say by this that intelligent pruning may mold the tree into most any desired form.

Even the despised lombardy poplar, which by the way is a stately and beautiful tree when properly placed and cared for, can be so pruned as to produce a pleasing effect if taken in time and pruned each year.

The most common error is to neglect the pruning until the tree has become ill-shaped and then to attempt, by the drastic method of cutting off many large limbs or the entire trunk to give it the symmetry and beauty desired. Such methods seldom bring the desired results and generally leave the tree so badly maimed and disfigured that it is only a question of time until it is removed, either by man or by the destroying fungi which enter the tree where the large pruning wounds have been made.

Subirrigation.

A novel method of irrigation is being tried in some parts of the West. It is called the subirrigation system, because the water, instead of being liberated on the surface, is injected into the soil under the surface. This method has a number of advantages. The use of open irrigation ditches, in the first place, wastes 1-10th of the land on the average and often this land is very valuable, whereas with the subsystem all the soil can be utilized. Then the new system requires only about one-seventh as much water, for by the old way most of the water is lost by evaporation and leakage. A typical plot in Texas of 20 acres gets all the water it needs, by the new system, from a single well pumped by a two-horse engine, says the Pathfinder. The entire 20 acres is honeycombed with a system of concrete pipes, made on the spot, for conducting the irrigation water. The main conduit runs the length of the farm and is four inches in inside diameter. From this run laterals, two inches in diameter, 33 feet apart. These laterals are pierced at three-foot intervals with a small hole only the size of a pin—this being covered with a cap to keep the dirt from filling it up. The water oozes from the hole constantly, but in minute quantities, thus keeping the ground supplied with sufficient moisture, but not flooding it.—Springfield Republican.

Forests Prevents Floods.

That forests are a protection against serious flood conditions is the answer made by George Otis Smith, director of the geological survey after extensive investigations, to the long controversy between forestry experts and weather bureau officials as to the value of forests. The report was made to the national forest commission, which has been buying tracts in the Appalachian and White mountains to protect the watersheds in the Eastern United States. Professor Willis Moore, chief of the weather bureau, and some of his associates have held that neither rainfall nor flood conditions were affected by forest cover.

Every great and commanding movement in the annals of the world is the triumph of enthusiasm. Nothing great was ever achieved without it.

Glimpses of the Land of Fruits.

One day last week representatives of the fruit growing interests of the state, who had been in conference at Albion on the day previous, made a survey of the principal fruit farms of Orleans county, says Democrat & Chronicle.

Orleans county is one of the great apple growing centers of the country, and it was, of course, impossible to visit all of the 152 fruit farms specified in the program, but many typical farms and orchards, both large and small, were examined with much interest. Some of the statistics gathered by the committee in charge of the excursion are made available for the first time, and they serve to illustrate the magnitude of the fruit industry in the single county of Orleans, in the center of the Lake Ontario fruit belt.

On one large farm were found 6,000 peach trees, bearing; 450 apple trees, bearing; 1,600 apple trees, not bearing; 300 pear trees, bearing; 1,000 pear trees, not bearing; 1,200 cherry trees, bearing; 600 quince trees, not bearing; 400 plum trees, bearing, and 500 currant bushes.

On another farm 11,300 bearing peach trees; 1,500 apple trees, bearing; 1,000 apple trees, not bearing; 2,000 pear trees, bearing; 200 pear trees, not bearing; 1,250 peach trees, not bearing, and 375 quince trees, were reported.

One farm of 497 acres reported 225 acres in fruit. It has 75 acres of peaches; 5,000 apple trees, with 5,000 pear trees set out as "fillers," to be removed when the apple trees reach full maturity. At this farm last year forty tons of peaches were mechanically graded and packed in baskets in one day.

Another well known farm contains 200 acres, 112 acres of which are in orchard. It contains 2,200 Dutch pear trees, 201 Bartlett pear trees, 1,043 pear trees of different varieties; 1,222 apple trees, 13 years old; 522 apple trees, 9 years old; 305 apple trees, 6 years old; 457 old bearing apple trees; 258 Kieffer pears and 362 quinces. On this farm is situated one of the Geneva experiment orchards of 412 trees of different varieties.

To the student of general rural conditions the excursion to the fruit garden of the world was intensely interesting. Some statistics of the larger farms have been given as showing the enormous growth of the industry in recent years, but prosperity was not alone manifest on the large fruit ranches. On the vast majority of the farms of the territory covered, fruit is made a specialty, and no land holding is so small that space is not allotted to choice fruits.

It need not be said that the great prosperity of the section is attributable to the adoption of the most approved scientific methods of fruit culture. Practically all of the farmers with fairly large holdings are members of the Western New York Agricultural Association, which has for many years fostered the fruit growing industry.

City dwellers who have not visited the orchard country are not fully aware of the delightful surroundings of the rural homes. To natural advantages are added the automobile, the daily mail and other features which bring the fortunate orchard dwellers into close touch with all that is best of city life. That great prosperity has waited upon intelligent modern agriculture and horticulture is everywhere manifest, even on the smaller farms and in the thriving countryside hamlets. And in by far the greater number of these homes that which is best in urban life is manifest. To these are added advantages which the city dweller must perforce forego.

Bedbug Next to Go.

"A fly and a flea, a mosquito and a louse, all lived together in a very dirty house. The flea spread the plague and the skelter spread the chills. All worked together to make the undertakers' bills."

The fly spread typhoid and the louse spread typhus too. Folks in that house were a mighty sickly crew. Along came a man and he cleaned up the house. He screened out the skelter and swatted the louse. The fly and the flea he cracked on the wall. Now the people in that house are never sick at all.

"Well," piped up the microbe, "that's all very well as far as it goes, but it strikes me you've been a bit partial in this thing. How about the bedbug? Where does he get off?"

"He's going to get off pretty quick," returned the doctor. "So far the bedbug has been able to prove an alibi, but I've put the sanitary detective on his trail and I'll get him yet."

Whereupon the microbe seeing things committed suicide by jumping into the inkwell.

The Effects of Pruning.

Pruning is almost prehistoric in origin and is popularly supposed to be the kindergarten operation in fruit growing, yet as often practiced it is a hit and miss, cutting sawing, chopping and shearing out of shoots, twigs, branches and limbs designated by such expressive terms as "cut-

ting back?" "heading in," "dehorning," and "thinning out the wood."

There must always be a difference in the details of pruning, but there are a few general facts and principles which every one who prunes should have well by heart: (1) winter pruning increases the vigor of the plant; (2) summer pruning decreases the vigor of the plant; (3) prune weak growing varieties heavily in winter; strong growing sorts lightly; (4) overpruning induces the growth of suckers or waterspouts; (5) heavy pruning young trees delays fruiting; (6) all pruning must take into account the habit of growing trees; (7) some fruits bear on this year's wood, others on that of last year, and still others on older growth; pruning must take the age of bearing wood into account.

A man can care for trees better if he makes a sharp distinction between pruning and training trees. The operations of pruning have to do with the modification of the vigor and fruitfulness of the plants, but training, properly speaking, aims to keep the trees in a manageable shape. Training as to whether high headed or low headed, open centered or close centered, one storied or two storied, depends largely upon the convenience or the prejudices of the owner.—From the Arbor Day Annual.

Always in Season.

Written Especially for Green's Fruit Grower By Frank I. Hanson.

Many have doubted if prayers are answered, but that hand prayers—labor—are answered there is no question.

Grumbling, worrying, and fits of anger detracts from our energy, makes the work no easier, and disturbs the peace for all around us. Better quit today.

It is a pretty sight to see the cats gather around the cows at milking time for their saucer of warm milk. It is the best food for them, keeping them healthy and on good terms with you.

There is little chance of the ladder slipping if there are good strong irons on the bottom. Better see to it before someone receives a serious injury.

A standing chimney where a house has burned is a menace to cattle and children. If there is one in your community either have it taken down or else push it over.

The man who assumes full charge of the finances in the home is not giving his wife a square deal. "Two for one pocketbook, one pocketbook for two" is a safe motto for every married couple.

Have the boys always wanted a boat? A good serviceable and safe style is one with a flat bottom and square ends. They do not cost much and will pay for the expense in healthy recreation.

The farm with its stock, machinery and crops represents a large investment, and the man who succeeds must act with the greatest business caution. No guesswork or slipshod methods will do.

Are you blessed with good neighbors? If you think they are not just what they ought to be, think the matter over carefully. Quite likely you will find that the most of the trouble lies with yourself.

Have you ever met men who thought that the farmers are men who cannot do anything else? Of course you have. The woods are full of them. Some day they will have to admit that it is indeed one of the great industries.

Economy is the safe guard of the farmer and his family. There must be better results in all the management, a profiting from last year's experiences. Of course you paid out many dollars that perhaps you could have saved, had there been different plans.

Never were the opportunities for the farmer greater than today, never such a widespread improvement in every aspect that makes life on the farm desirable, never so many convincing arguments to make the young people listen to the call of the soil.

Many pastures have one or more old cellars, which are a great danger to cattle. If there is one on your farm do something to prevent accidents. There are several ways this can be accomplished. A good fence can be built, but the best plan is to fill them with earth. A good place to dispose of the small stones.

There are ought to be more humane methods of taking the life of animals, particularly hogs. It is nothing short of cruelty to plunge a knife to the heart and then let them slowly die. Use a rifle or a smart blow with a sledge to render them unconscious. This does not in any way prevent proper bleeding, as many suppose.

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SANDUSKY, OHIO

Apple Growing in Nova Scotia.

Written for Green's Fruit Grower

By Frank I. Hanson.

Having been most favorably impressed with many glowing accounts of Nova Scotia, in literature and from personal friends, the writer found opportunity to view for himself the natural beauty and observe in particular the general characteristics of the apple growing industry. But a few hours ride from Yarmouth over the railroad and one begins to realize that he is nearing one of the famous orchard regions of the world. The comfortable farmhouses, many of them highly picturesque an literally surrounded by apple trees, the fields of thriving crops, and well-cared-for stock proves an unusual degree

Of course some of the farms have many apple trees which have been rather neglected and are scattered over the land at irregular distances, but the new orchards are models of neatness. Great care is exercised in setting the trees and keeping them pruned to shape. More attention is being given every year to spraying. It is fast becoming known that it means more fruit and a better quality, and it promises to become one of the most scientific branches of the industry.

The principal varieties are Baldwins, Ben Davis, Golden Russet, Gravenstein, King, Nonpareil, Mann, Rhode Island Greening, Spy, Stark, Wealthy, Ribston, Emperors, Blenheim, and Pippins. Great care is exercised in picking. A picker with a fair crop can average about twenty



Loading apples into freight cars at Round Hill. During the harvesting season many teams bring the new barrels of choice apples. Oxen are used quite extensively. The head yoke is used.

of good healthy living and prosperity. Surely Longfellow, in his famous poem "Evangeline," did not overcolor the beautiful scenery, the restful quietness and the genuine hospitality of the people.

The Annapolis Valley is a land of fruit, but the apple holds first place. The progressive farmers are realizing more and more the dollars to be had from good orchards and are sparing no efforts to bring them into the highest degree of productiveness. They do not as a rule make the common error of trying to get a double crop from the land. The old time farmer thought he must at least get a good crop of hay from his orchards, but the modern farmer thinks differently. He is quite content with a single crop of apples, which means more profit.

barrels a day.

It is interesting to watch the sorting and packing. Seven men make up a usual crew and an average day's product is about 100 barrels per day. The foreman's pay is about \$2.00 and the sorters \$1.50 per day.

Many of the growers make their own barrels on their own premises. The coopers' wages averages about \$2.00 per day. A barrel costs about twenty-three to twenty-five cents, depending upon the quality of material used.

The growers largely employ cooperative plans of marketing, and "pool" their apples. A farmer will take his salable apples to the packing house, where they are sorted. A strict account is kept of his lot. Then another lot will be sorted and

Duration of Life.

It has been estimated by Prof. Weisman in his work, "The Duration of Life," that the dayfly lives twenty-four hours, the Mayfly one day, the butterfly two months, as also does the flea; the fly three to four months, the ant, the cricket and the bee one year each, the hare and sheep six to ten years each, the nightingale twelve years, the wolf twelve to fifteen years, the canary bird fifteen to twenty years, the dog fifteen to twenty-five years, cattle twenty-five years, the stag thirty-five to forty years, the heron and bear fifty years each, the turtle and parrot 100 years each. The ivy outlives 200 years, the elm 300 to 350 years, the linden 500 to 1,000 years, the locust tree and the oak 400 years, the fir 700 to 1,200 years, and palm trees 3,000 to 5,000 years. The mouse lives six years, the squirrel six years, small singing birds eight to eighteen years, the pigeon ten years, fowls (domestic) ten to twenty years, the fox fourteen years, sheep fifteen years, golden pheasant fifteen years, the turkey sixteen years, crayfish twenty years, the magpie twenty years in captivity, well over twenty years in natural state; the pig twenty years, the wild boar twenty-five years, the sea-snail thirty years, the cuckoo (single instance) thirty-two years, the lion thirty-five years, the toad, cat and horse forty years, corals fifty years, sea anemones fifty to sixty years, the raven and eider duck 100 years, the wild goose 100 years (?), eagles and falcons 100 years, the golden eagle 104 years and upwards, the white-headed vulture 118 years, falcon (species not mentioned) 162 years, the elephant 200 years, the pike 200 years, the carp 200 years and the swan 300 years (?).

piston rod is usually connected by a crank to a pair of rather heavy fly wheels. When the engine is turned, the piston moves in and out of the cylinder just like the piston in an ordinary water pump.

There are two valves opening into the cylinder, one termed the "inlet" and the other the "exhaust." These are so geared that on the outward stroke of the piston (equivalent to the upward stroke of a well pump), the inlet is opened and a mixture of gasoline, oil, or some other suitable fuel with air, is drawn into the cylinder. This fuel and the air are mixed in a device known as the "carburetor" which next to the "ignition" is responsible for most of the engine troubles.

The cylinder is now full of the gaseous vapor which is of course highly explosive. The momentum of the fly wheel now forces the piston back against this mixture, and the inlet valve being closed, the mixture is compressed. When compressed to the fullest extent, an electric spark is produced in the mixture which is exploded, this driving the piston outwards with great force. This force turns the crank and the fly wheel, the latter smoothing out the impulses and making the engine run steady.

When the piston is driven out by the explosion, the outlet or exhaust valve is opened at the bottom of the stroke, and when the piston moves up into the cylinder again, it drives out the burnt gases that remain in the cylinder. This causes the puffing sound of the exhaust. After the cylinder is thus cleared of the burnt gases a fresh charge is taken in as just described, and so on, as long as the engine runs.

Why Gas Engines "Go."

Written for Green's Fruit Grower

By H. R. Van Deventer.

Among the 25,000 dealers and the 7,000,000 gas engine users in this country, how many really know what makes the engine "go."

The gas engine is the most simple power producing device imaginable. If properly understood, it is one of the easiest to keep in good working order. If abused by so-called "experts," who have not studied its principles of design and operation, a perfectly good engine which only requires a little cleaning out, or two or three turns of an adjusting screw, is often irretrievably ruined.

The main parts of the gas engine are the cylinder, piston, and fly wheel. The

Thunder Affects Food.

Chicago Tribune.

The problem of the curdling of milk and the rapid putrefaction of meat during thunder storms is an old one, but it does not seem to have been satisfactorily solved. Artificial electrical fields, as lately tried by Professor Trillat at the Pasteur Institute, Paris, seem to have no effect on either milk or meat. The lowering of atmospheric tension following a thunder storm, however, has been found to bring about the emanation of gases from the soil, and these probably aid decomposition and the growth of putrefactive organisms. This is suggested as a possible explanation also of the increase of epidemic disease and the turn for the worse of large wounds during a period of low barometer.



A neat sum of money is realized from hogs, which are pastured in orchards. In the illustration the "head of the family" has just arrived for a few minutes' of ear-scratching.

Young orchards are planted with vegetables, but when the trees come into bearing they get the full benefit of the soil. Sometimes the orchards are cultivated and seed, such as buckwheat or red clover, is sown. This grows very thickly and helps the ground, it is claimed, retain the natural moisture. This is plowed under in the fall, decays and helps to fertilize the soil. The trees are further fertilized by being dug around and liberally manured.

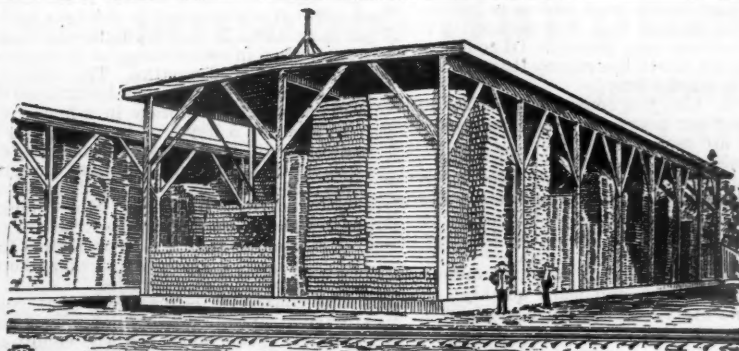
Large stock is seldom turned into the orchards, but it is not uncommon to see a large number of pigs. They work over the soil, add a good bit of fertilizer and subside almost entirely upon fallen fruit. So decaying windfalls are almost unknown. It is indeed a pretty sight to see a drove of short-legged, curly-tailed pigs frolic among the trees. They remain from early spring till late in the fall.

barreled. Finally the apples from several farms will be sold as one shipment and later a settlement is made.

England is the chief market, but some find their way to Germany and Ireland. The Canadian Northwest is taking many. The early varieties are sent to more local centers, like Halifax, Yarmouth, St. John and Sydney. The prices for No. 1's ranged from \$2.00 to \$2.50, and the No. 2's from \$1.00 to \$1.75 in the season of 1911 for the winter varieties.

Mrs. Dewtell—There's some dreadful thrilling scenes, Ephraim, in this continued story I'm reading. This is the way it winds up this week: "The poor, trembling captive sat and listened, with bated breath, but nobody came."

Ephraim (with a dry chuckle)—P'raps he didn't use the right kind of bait.



A Plain Statement of I H C Wagon Value

THERE is money saved for one farmer every time an I H C wagon is sold. Not because it costs less money to begin with, but because of the length of service it gives, an I H C wagon is the cheapest wagon you can buy. A new wagon costs you the price of so many bushels of wheat, corn or oats, or so many bales of hay. The longer the wagon lasts the more you get for the original purchase price, and the cheaper your wagon becomes. That is why it is economy to buy the best wagon—one that will outlast any ordinary wagon. When you buy an I H C wagon

**Weber
Columbus**

**New Bettendorf
Steel King**

you invest in a wagon built of the highest grade material which experience and care can select or money can buy, built in the most thorough, painstaking manner, by skilled workmen, in factories which have modern appliances for doing work of the highest standard at the lowest possible cost. The conditions under which I H C wagons are built are nearly ideal.

All lumber used is air-dried in sheds with concrete floors. This insures toughness and resiliency. All metal parts are made of especially prepared steel, guaranteeing the longest service. Each wagon undergoes four inspections before being shipped so that it reaches the purchaser in first class condition, ready to be put to work at once and able to carry any reasonable load over any road where a wagon should go.

Weber and Columbus wagons have wood gears, New Bettendorf and Steel King have steel gears. The I H C local dealer knows which wagon is best suited to your work, will tell you why, and will sell you that one. When you see him have him show you all the good points of I H C wagons, and hear what he can tell you about the experiences of I H C wagon owners. You can get literature from him, or write

INTERNATIONAL HARVESTER COMPANY OF AMERICA

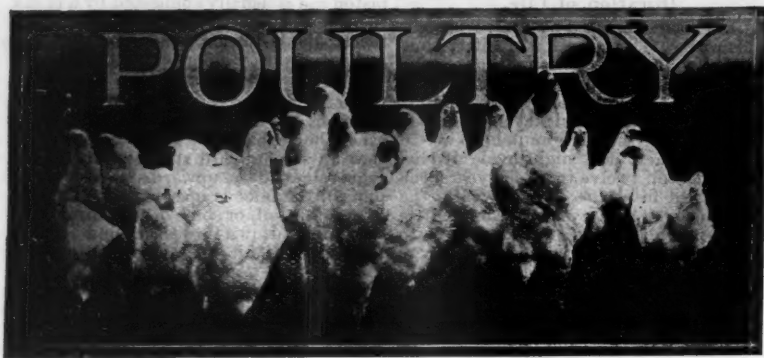
CHICAGO

(Incorporated)

U S A

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizers, etc., make your inquiries specific and send them to I H C Service Bureau, Harvester Building, Chicago, U S A





ENORMOUS WASTE IN HANDLING EGGS.

Found by Federal Department of Agriculture.

M. E. Pennington, Ph. D., of the United States Department of Agriculture, sends the following open letter to buyers and shippers of eggs:

Here are some of the fundamental points to be considered by all egg men, whether producers, shippers or middlemen.

"1. Encourage the production of large eggs. This can be accomplished by keeping pure bred 'general purpose' breeds of fowls, hatching only eggs that weigh at least two ounces apiece and from only the most vigorous stock. A higher price for large than for small eggs will help along the argument.

"2. Infertile eggs do not hatch, do not form blood rings, and seldom form black rots. If the male birds are sold or penned up after June 1st the flock of hens will lay more eggs and they will be infertile.

"3. A year-round observation of New York receipts showed that over 12 per cent, were dirty shelled, and sold for a lower price on this account. You should buy these dirty eggs at a lower price, for you are paid less for them. If one nest is provided for each six hens, in a cool, dark place, kept clean and vermin free, dirty eggs will be reduced to a minimum.

"4. More than ten per cent. of the eggs received in New York during the year are 'seconds,' because they are stale. Tell your egg men that gathering eggs every afternoon, or twice daily in hot or murky weather, keeping them in a cool, clean, dry place until marketed, and marketing at least once a week and more frequently in the summer time, will reduce the number of stale eggs greatly. Of course, stale eggs are worth less money than fresh eggs, all along the line.

"5. Can you convince your trade that eggs from stolen nests and from incubators are never fit for sale? If the farmer thinks they are good, reliable food, urge him to eat them at home. For, since the egg buyer can afford to pay more for large, clean, fresh, whole-shelled eggs, it is good business for the farmer to use small, dirty, cracked eggs at home.

"6. Do you know how to handle eggs? If not, learn, and learn quickly! There is no other way by which you can determine the worth of what you are paying

for. Having yourself learned how to grade eggs, show the merchants, peddlers and farmers in your neighborhood, by means of the candle, what kind of eggs they are bringing to you. Farmers are not scamps, nor egg buyers angels. Show the farmer the kind of eggs you cannot pay for and he will find a way to eliminate the bad egg and to make the good egg even better.

"7. When first quality eggs come to your packing house what means do you take to keep them so until they get to market? To build up and keep a good reputation for your output you must grade carefully and uniformly; pack in good fillers, flats and cases; ship quickly and under good conditions. If you would be classed among up-to-date shippers, you must have mechanical refrigeration that the chilling of the egg may begin the minute you receive it. Candle in a room where the temperature does not go above 55 degrees F. Shipped chilled, in a good refrigerator car, in car lots. If you cannot chill the eggs before shipping, use a refrigerator car, well iced, and ship only the minimum load, that the eggs may receive the benefit of the ice before the market is reached."

Length of Time Poultry May be Kept at Low Temperatures.

In a general way of conclusions reached by those investigators who have worked on cold-storage problems are that there is no appreciable difference in chemical composition between fresh meat and meat kept frozen for periods longer than two years. No progressive changes could be determined with precision.

In regard to frozen poultry it has been stated that the changes in chickens in 24 hours at 65 to 75 degrees Fahrenheit are greater than in cold storage at 10 degrees Fahrenheit for 12 months. The changes taking place in cold storage for 12 months are comparable to storage in a house refrigerator for 5 days, or in the packer's chillroom at 32 degrees Fahrenheit for 15 days, this not being sufficient time to bring about the tenderness and flavor of so-called "ripened" meat. Most chickens bought in the market as fresh are of poorer quality than chickens frozen for 12 months, and are poorer than many kept in cold storage for 16 months.

The conclusion is inevitable that cold storage at 10 to 15 degrees Fahrenheit has no deteriorating effect on the condition of meats, poultry and fish for a period long enough to bridge over the time from one flush season to the next, that is to say, for about 12 months.—Popular Science Monthly.

We make our fortunes, and we call them fate.—Alroy.

By sowing frugality we reap liberty, a golden harvest.—Agesilaus.

There is no genius in life like the genius of energy and industry.—Mitchell.

Good nature, like a bee, collects honey from every herb. Ill nature, like the spider, sucks poison from the sweetest flower.

Poultry Disease.

Written for Green's Fruit Grower By A. G. Symonds, N. H.

Poultry is as prone to physical ills and diseases as the human race. There are many kinds of diseases that attack poultry and it is possible to cure most of them by specific remedies. There are many eminent poultry doctors throughout the country that prescribe for the ills heir to the flesh of fowls. Remedies for all common hen ailments are advertised in every poultry paper in the country.

It would seem then that most diseases of poultry might be checked or entirely stamped out. But this is not the case. The abundance of poultry cures and medicines bear a tendency to check the disease for a time and obliterate it for a generation, but a constitutional disease cannot be eradicated. It is bound to crop out. Fowls having roup may be cured for the time being. No sign of the disease will be apparent in the flock, but wait until the next generation comes into existence and you will find this dread disease appearing.

It is not safe to hatch chickens from eggs laid by fowls that have been diseased in any way. No matter what the disease may have been that fowl's constitution had to suffer and that weakness will be observed in his or her offspring. Many losses can thus be checked in poultry keeping if this rule is followed.

My father was always successful with poultry. He never suffered any heavy losses by disease attacking his flock. His maxim was: "The axe and the chopping block are the best cure for a sick fowl." He believed that the first loss was the least and no sick fowl was ever doctored, but immediately dispatched at the chopping block, and the carcass buried. For this reason I never knew as a boy what poultry diseases were, for I had no chance to observe their work upon my father's flock.

Back in the time of ancient Greece when the Greeks were the leading people of the earth, there was one certain clan or tribe that dwelt in a division of Greece called



ON DEAR, ON DEAR, IT'S NO USE FOR YOU TO STRIVE TO CONCEAL ANYTHING! THERE'S A FEATHER ON YOUR COAT.

Sparta known as Spartans. They were the physical superiors of all other Greeks and probably of all other races of antiquity. There was a reason for this physical supremacy. They were very careful in their diet and no invalids or sick were allowed to live, but were thrown into a cave. In this way they followed the law of the "survival of the fittest," and thus strengthened their race by eliminating disease and sickness.

Why not apply this Spartan rule to poultry? Why not rid every flock of disease by using the axe and block whenever sickness appears? Surely this will result in better vigor, health and constitutions.

Don't Forget.

That a little powdered charcoal prevents bowel trouble in young chickens.

That a little powdered chalk prevents diarrhoea, as also does chopped up raw onions, or camphor in water.

That salad oil is one of the best chicken medicines, and that salad, or sweet oil should be used in preference to castor oil, the latter being too drastic except for mature stock.

That bi-carbonate of soda is useful for chickens suffering from sour crop.

Don't forget to clean out the hen house at least once a week, paint the perches with coal oil, or other lice killer. See that the nests are not infested with vermin, such as red mites, as you cannot neglect this part of the business during the summer.

Poultry Remedies.

Seven rules or maxims have been given to meet all the requirements of a successful poultry industry.

The ease with which these maxims can be carried out, and the cheapness of the articles employed for that purpose, combine to give them the maximum of practical value. It is true there are many different medicines with which to "clean out" the intestinal tract; there are a legion of disinfectants with which to "clean up" the soil, and numerous drugs with which to clean the water supply. If, however, the poultryman can become expert in the

use of just one good and sufficient substance for the accomplishment of each of these primary principles, he is far better off than if his mind were stored with a whole materia medica which he has rarely or never tried. Notice how simply these maxims can be carried out, says Year Book of the Department of Agriculture, 1911.

Clean out by giving Epsom salt.

Clean-up by spreading powdered air-slaked lime.

Clean the water supply by adding permanganate of potash.

Clean the food by preventing contamination or by heating.

Clean the eggs by dipping in grain alcohol.

Clean the incubators and brooders by scrubbing with hot water and good, old-fashioned kitchen soap.

Clean the breeding by using the youngest females consistent with the requirements of good breeding.

Success with Poultry.

The essentials to success are good stock, good food, good houses, good care and good common sense. Good stock, pure bred, with strong constitutional vigor and with proper selection in breeding, says Weekly Fruit Grower Market Gardener and Poultryman. Good houses properly located, sensibly designed, well ventilated and conveniently arranged. Good feeds, skillfully fed and properly balanced. To make it plain to the school children, it was stated that a good feed was composed of five G's:

Grit—with which to grind the food.

Grains—corn, wheat and oats and a dry mash made of the same foods ground.

Greens—ground alfalfa, clover, cow peas, beets or cabbage.

Grubs—dry beef scraps, skim or buttermilk or meat food.

Gumption—the use of Common sense in all your operations.

Good care was the fourth essential, a willingness to work and the ability to hatch and rear chickens. If any one fact was made plainer than another it was that you must keep your houses and premises absolutely clean, provide for sufficient ventilation pure water and feed and an abundance of exercise. The fact was pointed out that the hen is healthiest and happiest and does best when she is at work. She is one of the few things in this life that loves to work, and is so modest that she never crows, cackles or brags about what she does until she has delivered the goods.

While most farmers don't keep sufficient hens to make it profitable, simply keeping enough for their own family use, yet it is better to keep 100 hens and make a profit on them all than to attempt to keep 1,000 and lose the profit on all of them.

Flatulency or Wind Colic in Horses.

This is usually due to an acute indigestion resulting from new hay or oats, green or sour food, indigestible food, sudden change in diet, particularly from oats to corn, imperfect teeth or to cornmeal fed dry. As a result of fermentation gas is formed in the bowels, which causes the animal to bloat rapidly. The pain is practically continuous, the animal has a very anxious expression of countenance, moves and breathes with difficulty; there is usually profuse sweating and the termination is rapidly fatal. One grain of arecoline hydrobromate given hypodermically, followed by one-half grain in one-half hour, will usually cause the passage of gas with copious evacuations of manure. Pending the arrival of the veterinarian two or three ounces of baking soda in a pint of water may be given. Hot applications, liniments or rubbing the abdomen with straw helps to ease the patient and should be used in every case. Empty the rectum by hand or by injection of warm soapy water through a piece of ordinary garden hose to which a funnel has been attached.

To Advertise the Apple.

A committee, consisting of W. Grant Border, Baltimore; Charles Williamson, Quincy, Ill.; Chester Franzell, Pittsburgh; R. H. Pennington, Evansville; R. J. Coyne, Chicago, was appointed to consider the national advertising of the apple. The committee is to consult with advertising agents and plan for raising sufficient funds for the work to start as early this season as possible.

Congress was asked to appropriate \$10,000 for experimental work on apple exports, especially in connection with the refrigeration and proper temperatures. It was suggested that steamship companies be compelled by law to equip their refrigerators with thermometers.

To cultivate a garden is to walk with God.—Bovee.

Lovely flowers are the smiles of God's goodness.—Wilberforce.

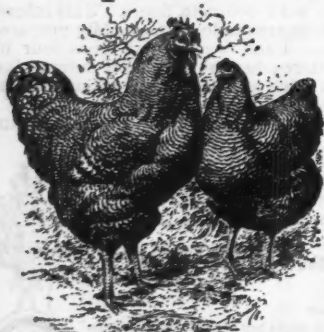
Every man is the maker of his own fortune.—Tatler.

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90 YAE'S All breeds Poultry, Eggs, Ferrets, Dogs, Pigeons, Hares, etc. List free. Colored Dec. 60 page book 10c. J.A. Berger, Box J, Telford, Pa.

Surplus Thoroughbred Fowls



Must be sold to make room for young stock.

Barred Plymouth Rocks and Single Comb Brown Leghorns. All strong, selected, farm-grown fowls, only one year old. Just what you want for breeding next season. To make room for young chicks we must let them go, and offer Plymouth Rock and Brown Leghorn hens at \$2.00, fine male birds at \$2.50 to \$3.00 each. Only \$6.00 to \$8.00 per trio, while they last.

They are worth much more money. Order at once and get the first pick.

GREEN'S NURSERY CO. POULTRY YARDS, ROCHESTER, N. Y.



Fill the Milk Pail.

Now that summer is well advanced, the cows should be fed green stuff from the fields, so that they will not dry off and become strippers, unless they have been bred to freshen in the fall. Many cows calved this spring, and to permit these animals to become strippers means to lose a real profit, says The National Dairy Magazine.

Hot weather and flies worry the cows a great deal, but they do not cut down the milk supply like dry, scanty pasture. To live comfortably and yield a fair mess of milk, the cow living on pasture must eat about 100 pounds of grass a day. Does the average person ever stop to think about the amount of work which the animal must do to find and eat 100 pounds of grass? It must be remembered that a cow's mouth is not as wide as a lawn mower, and that many, many bites must be taken in one day to secure enough food, even when on good pasture. If anyone doubts this analysis of the problem, let him go into the pasture some day and cut 100 pounds of grass with a pair of shears.

As a matter of fact, the cow, when she has satisfied her own hunger, will often-times lie down in the pasture and forget all about the grass which she should have eaten to make her keeping profitable. To obtain a profit the cow must eat much more feed than is needed for her own personal needs. She will not produce liberal quantities of milk unless she is fed liberally. She will eat a liberal amount of feed only when she can get it by expending a minimum amount of energy.

In a test made by the writer which lasted three years and concerned a herd of 60 dairy cows, it was conclusively shown that cows on short pasture, even though well fed at the barn, became dry sooner than the cows who ate a similar amount of feed, but who were not compelled to run about while they were securing it. The cows which were fed put the energy into the milk pail, which the others exercised in running about.

The summer silo is the best means of bridging over this dry spell. If the farmer with cows does not have a summer silo, however, he should feed green feed to them. Corn or peas and oats make an admirable green feed.—R. M. Washburn, Dairy Division, Minnesota College of Agriculture.

Hints from Kimball's Dairy Farm.

The sections where the poor farms predominate are usually sections where the barnyard manure is not available or not properly utilized. There is nothing that will do more to keep farms in rich shape than the fertility that is produced by farm stock.

It is a pretty safe investment to put money into a good dairy calf or heifer at any time, provided of course you can give her the right kind of care.

The silo will increase the amount of milk that can be produced upon the farm and it will also cut down the cost of production.

The farmer who has the hardest time keeping out of debt is the man who depends upon a single crop for his income.

The use of soiling crops may become necessary at almost any time now. The man who is prepared is fortunate.

Inferior traits of the dairy herd may be corrected more quickly by breeding.

There is just as much importance in improving the dairy farmer as there is in improving the dairy cow.

There is no product sold from the farm pound for pound the year around that brings a larger profit than butter, and no product that takes away less fertility when it is sold.

The increase in the cost of living will stimulate the greater demand for dairy products.

If you doubt the advisability of keeping dairy cows comfortable and contented visit the man who makes the best records with his cattle and see how he cares for them.

Finds Ring After Fifteen Years.

Fifteen years ago Joseph C. Baird now cashier of the First National Bank of Washington, Pa., lost a gold band ring while out driving. Yesterday J. J. Davin brought the ring to Mr. Baird, after having found it in his pigeon loft. The only explanation advanced is that a pigeon owned by Mr. Davin, found and carried the ring to the loft.

Kick of Cow May be Fatal.

Joseph Roe, about 55 years of age, a farmer residing at Gravel Run, about three miles south of Hornell, N. Y., was probably fatally injured last evening, when a cow which he was milking became frightened at the farm dog and kicked Roe squarely in the stomach. The injured man was carried in the house by members of the family, and it was some time before he regained consciousness. A physician was summoned from Canisteo. It is thought that Mr. Roe is internally injured.

Better for Farmers Gov. Dix of New York Says.

The Governor was deeply interested, Mr. Redfield said, in scientific training of young men in farming. This, Mr. Redfield said, the Governor thought would mean much in reducing the high cost of living, inasmuch as the farmers of America do not produce, on each acre, so much as the farmers of other countries and are producing no more, and in some cases less, than they produced an acre years ago.

"If the production per acre be increased," he said, "the farmer makes more money, and at the same time the price of his products is lowered."

Country Town Sayings.

By Ed. Howe.

A good deal of effort is required, I imagine, for an old man to be an optimist.

People have a way of pronouncing the word "trust" which makes it sound as bad as "scoundrel."

There is one unsatisfactory thing about liberty: we never get enough of it.

The victory in which you take so much pride often costs more than it is worth.

Another reason a farmer is more contented than a town man: he has no modern convenience to inconvenience him.

Don't neglect your business unless your opponent will agree to neglect his at the same time.

Every man is probably shocked because his opinions are not more generally accepted; and that there are so many contrary to his.

Rivalry between undertakers seems a little more objectionable than any other.

Magazine writing would be more generally liked were it not so prominently labeled as smart and brilliant. People know a magazine article is read by a critical board of editors before acceptance; therefore the people can't resist the temptation to say: "don't think it is so wonderfully good."

A Recipe for Success.

Keep your head cool—your feet warm—your mind busy. Don't worry over trifles. Plan your work ahead and then stick to it—rain or shine. Don't waste sympathy on yourself. If you are a gem, someone will find you. Don't whine. Tell people you are a failure and they will believe you. Talk and act like a winner and in time you will become one.—Stephen Harte.

The Successful Man.

I notice that most successful men are those whose minds are always cool, who, no matter how swift the movements of their bodies, are able to deliberate coolly and to produce calm, sober judgment even under disturbing circumstances. It is not the man who reaches the corner first who wins, but the man who knows exactly what he is going to do when he reaches the corner.—Charles E. Hughes.

FREE UPON REQUEST A book that every Cow Owner should have

At an expense of thousands of dollars we have gathered together in this book a great fund of valuable information covering very fully those questions which are of vital interest to every owner of cows.

The very best and highest authorities in the land have written a number of chapters especially prepared for this handbook upon a wide range of dairy subjects.

Dr. Coburn, Secretary of the Kansas Department of Agriculture, the great alfalfa expert, has written a chapter on ALFALFA.

Dr. Alexander, Professor of Veterinary Science, University of Wisconsin,

discusses DAIRY COW DISEASES AND THEIR PROPER TREATMENT.

Prof. Hugh G. Van Pelt, the Iowa State Dairy Expert, and one of the Editors of Kimball's Dairy Farmer, has contributed a most interesting discussion on PROPER DAIRY FEEDING AND BALANCED RATIONS.

Dr. Burkett, Editor of the American Agriculturist, tells about the Most Suitable Dairy Crops, and other widely known authorities discuss SOIL FERTILITY, DAIRYING FOR PROFIT, FARM BUTTER MAKING, SILOS AND SILAGE, etc., etc.

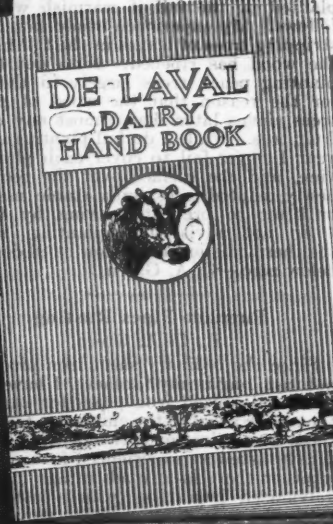
A series of photographs illustrating the desirable points in selecting a dairy cow are shown, and also photos of representative cows of the various well-known dairy breeds, together with statements from the secretaries of the various dairy cattle associations setting forth the claims for consideration of each breed.

The HANDBOOK also contains much general information such as tables of weights and measures, silo capacities, etc., that every dairymen at some time or other has occasion to refer to.

While the DE LAVAL DAIRY HANDBOOK covers the various phases of dairy farming most completely, it is in no wise technical, but is written in plain every-day language so that even the children can understand it.

You certainly ought to have this book. It's absolutely free. Just fill out the coupon and mail it to

The De Laval Separator Co.
165 Broadway
New York



I keep _____ cows. I sell cream, make butter, sell milk (Cross out whichever you don't do). The make of my Separator is _____, used _____ years.

Name _____

Town _____

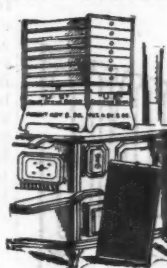
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Seasonable Supplies

THE HOME EVAPORATOR



Thoroughly tested and approved. Latest, cheapest, best. Can be used on any stove, dries any fruit.

The price of this Drier is \$6.00. Our Special Reduced Price, Only \$4.75.

A BARGAIN

If ordered at once, Green's apple papper, corer and slicer with the Home Evaporator, all for \$5.50.

Send for circulars describing larger Evaporators, Pappers, etc.

SENSIBLE FRUIT AND CIDER PRESS



A well made and handsome Press for making cider, wines, jellies, syrups, etc.

Made with special reference to strength, and guaranteed against breakage under any fair usage. All iron and steel, stronger and better than the old wooden press. It has double curbs.

PRICE, ten qt. curbs, weight, 40 lbs., \$3.95.

CLIMAX BASKETS

For shipping Plums, Cherries, Grapes and other small fruits. They are strong, well made and complete with covers and fasteners. They are generally used for shipping some distance and are built to stand the travel. The 8-lb. size is also much used for shipping eggs for hatching.

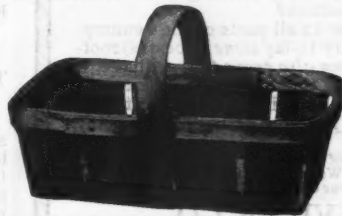
Price of 8-lb. Climax Baskets, complete with cover and fasteners, \$27 per 1000, \$16 per 500, \$3.50 per 100.



SPLINT BASKETS

Are lighter than the Climax and are generally used for Plums, Cherries, Grapes and other small fruits in nearby or home market, where covers are not wanted. They are used almost exclusively in Western New York in preference to any other.

Price of 8-lb. Splint Baskets, without covers, \$20 per 1000, \$11 per 500, \$2.50 per 100. Covers for 8-lb. Splint Baskets, \$5 per 1000.



STANDARD PEACH BASKETS

Western New York standard "one-third" peach basket, made of the best material and wire sewed. Best for home market or for shipping.

Price, \$25 per 1000, \$13 per 500, \$3 per 100, \$1.75 per 50.

Special Prices on large lots of all kinds of fruit baskets quoted on application.

NOTICE—All prices for baskets are subject to change without notice. Order early and get the lowest prices. When the season comes on there is a general rush for baskets. If you delay ordering, you may not get them in time at any price.

The above prices subject to change without notice.



THE NIAGARA FRUIT LADDER

A ladder made from the best selected white basswood, with tie rods at every other step. A model for strength, lightness and durability. It always stands and never rocks, no matter how uneven the ground may be.

Price, 30 cents per foot, 6 ft., 8 ft., 10 ft. and 12 ft., always carried in stock.

GREEN'S NURSERY COMPANY

Supply Department

ROCHESTER, N. Y.

Autumn.

By C. A. Green.

Though summer has scarcely passed, I see now and then a falling leaf. The early grapes have ripened and the late grapes are beginning to color. The fall apples have been gathered and sold, the corn is ripening, chestnuts are well formed, the farmer has harvested many of his crops and has sown his winter wheat. Soon the corn will be in shock.

As I wander through the fields I see that the robins have gathered in covies, an indication that they are getting ready to move southward. I notice the absence of many other birds that I have protected during the summer and which have sung for me throughout the season. The squirrels seem to be more active than usual. Possibly they are on the lookout for maturing nuts.

Though the noonday sun is warm, the nights are often chilly. The showers are lengthening into days or nights in duration. The days are growing shorter. We begin to look for frost upon the vine and tender flowers. The town, county and state fairs have closed, schools have opened, the folks have returned from their vacations, the straw hat has been laid aside, the cat and dog are more inclined to seek the warmth of the kitchen stove, the cattle come home from the pasture more quickly at eventide, the woodchuck has retired to his winter den, the rabbit and the partridge are being chased by the hunter, the trout streams are closed for the season. We are admonished that autumn is here again.

Fall Planting of Fruit Trees.

It is a common mistake to suppose that deciduous trees cannot be transplanted until the fall of their leaves. Not only they can be planted then, but they should be, in many cases, for where severe cold in winter is experienced the earlier planting will be much more successful than the later one, says Jos. Meehan in Practical Farmer. There are, however, many persons now who have witnessed the well doing of the early set trees who advocate and practice it themselves. By the time September is reached the foliage of trees has performed its work, and there is little, if any harm done by stripping it off. The little that may occur from defoliating the tree a month in advance of its natural falling is not to be thought of when considering the benefit of the early planting.

The chief reason for the success following the early planting is that the warmth of the soil promotes root growth at once, so that a September set tree will have made new root growth before winter sets in. Should a tree set in September be lifted from the ground in late October it would

be found to be well supplied with new roots. If any exceptions to fall planting of fruit trees under the old system of setting them in late October exist, it is usually the peach that is excluded, but under the plan of early planting this tree can safely be included with the others. The peach is late in ripening its shoots, therefore in very cold winters it sometimes suffers when set so late in autumn that new roots do not form. The recommendation of many planters to wait for rain before setting trees is very well as far as it goes, but rain should not be waited for. When the time comes to plant, set the trees, tramping the loose soil firmly about the roots, until the hole is half filled up, then pour in water to fill the hole to the top. When this has soaked away repeat the operation of pouring in more water. An hour or so later fill in the remainder of the soil without tramping it; with this done full success may be looked for.

Editor's Note:—It is true that new roots will soon begin growth when the trees are planted in the fall if warmish weather follows. My experience would not favor stripping trees of leaves in the fall before the wood has ripened. I do not favor planting peach trees largely in the fall for the reason that the wood of peach trees ripens later than almost any other fruit tree. While I do fall planting every year I never fail to cover each plant or vine, and the surface over the roots of newly planted trees, with stable manure or litter to prevent heaving by frost. I do not advise fall planting where the thermometer falls as low as 20 degrees below zero.—C. A. Green.

Furnace Pipes Rusting.

By C. A. Green.

Since the ordinary sheet iron pipes did not last long in my furnaces, I have been using galvanized iron pipes for carrying the smoke away to the chimneys, but even these do not last over two or three years. I have asked an experienced furnace man whether there is any advantage in using galvanized iron pipe, which costs considerably more than ordinary stove pipe, and his reply is as follows:

"Galvanized stove pipe used in a cellar, which is more or less damp, does not rust as quickly as black pipe. But in a living room the black pipe will last as long as galvanized pipe."

My experience is that it is not rust that destroys my furnace pipes but that it is the action of the acids on the inside of the pipe, which corrodes the iron and destroys the stove pipe. I therefore advise that all furnace pipes be taken down when fires are extinguished in late spring, cleaned and

left down so that the air can circulate freely through them until the furnaces are needed again in autumn. These pipes should be taken down each year in any event in order to clean them of soot. The furnaces also should be cleaned as soon as the spring fires are extinguished.

The Death of Professor John Craig.

We are pained and surprised to hear of the death of John Craig. Professor Craig was one of the notable workers of our New York State Experimental Station. He was ever present at the horticultural gatherings in this and other states, and his tall figure and interesting face was ever welcome on the platform at these meetings. He always had something of interest to say.

Though he had been ailing for some time he has seldom spoken of his ailment and seemed so cheerful meanwhile as to surprise his friends and acquaintances. He was a genial host and entertained at his home many visitors when ever opportunity offered. The death of Professor Craig is a great loss not only to the state of New York but to the entire country. There are few teachers of pomology who were more favorably or better known.

What Price Should Be Asked for Apples this Fall?

Green's Fruit Grower does not claim prophetic vision, which would be necessary in order to indicate positively prices for fruit during the next few weeks or months. But there will be no harm in giving our opinion in the premises. Our opinion is that well graded, well picked winter apples will find a market this fall at from \$1.50 to \$2.00 per barrel. Remember that there is a vast difference in grading apples and that the apples of certain favored localities are more nearly perfect and will bring higher prices than apples grown in less favored localities. Remember also that buyers of apples will congregate in favored localities where superior apples are grown in large quantities rather than in isolated orchards not so favorably known. I have always held that the best time to sell fruit is at about the time it is picked, or within a few weeks of that time. While there are seasons when it will pay to store apples for winter or spring sales as a rule it is more profitable for the grower to sell his apples in the fall as soon as they are ready for shipment.

Fruit for Health.

In all ages the eating of fruit has been recognized as an aid to health. Some of the more advanced dieticians advocate the use of fruit and nuts exclusively. The more reasonable plan, however, seems to be to eat "plenty of fruit," and that is the way Dr. Harvey W. Wiley, the famed pure food expert puts it. He believes that everyone should eat fruit—say oranges or apples, and they cost about the same every day. The nation seems to be following this advice. "It will save doctor's bills," says Dr. Wiley, and who should know better than he? But that is a fundamental fact which everyone should know from experience. It is pretty safe to say that the more fruit people eat, the better the health of the nation will be.

TO OUR SUBSCRIBERS ONLY.

If you can use a part of your time this fall and winter doing good in your neighborhood we have a very special offer to make you. It is one that will pay you well in real money. Write today and be the lucky one in your neighborhood to get in on this paying plan. Address The Pay Plan Man, care of Green's Fruit Grower, Rochester, N. Y.

FARMING.

The Farmer's Many Advantages Over the Newspaper Man.

"A man who owns eighty acres of land and has sense enough to till it, makes the lot of country newspaper men look like the last sad remnants of a Dutch lunch," says the Olathe Register. "The farmer has the best of it all around. He is as independent as an express company. He doesn't have to write a soulful obituary over some peak headed fellow that keeps on display an exhibit of cut plug profanity that would make the efforts of the steamboat mate sound like the meeting of the Epworth League. He doesn't have to go into raptures over the beauty of an open face bride with a cast of countenance that would blow out the gas. The farmer isn't required to lie until his back teeth fall out about the sterling manhood of a bridegroom with ears like a cauliflower plant and the brain of a yearling shoat. He doesn't have to run a contest for the most beautiful young woman in the community, make everybody sore and then print a 75-cent halftone of the beauty that looks like a tintype of grandma at the age of 13. Neither does the editor, says the Modern Light, but he most always does."

CLASSIFIED ADVERTISEMENTS

No display advertising will be placed in this department and no type larger than 6-point. The first three words only to be printed in capital letters. Each abbreviation and number will count as one word. Rate 10 cents per word for each insertion. No advertisement inserted for less than \$1 per issue. We cannot afford to do any book-keeping at this rate. Cash must accompany every order. Orders must reach us not later than the 15th of the month previous to the month in which the advertisement is to appear.

Terms: CASH WITH ORDER.

Green's Fruit Grower Co., Rochester, N. Y.

HELP WANTED

WANTED—Competent man to take charge of orchard. Salary or shares. Apples, cherries, plums and small fruit. 100 acres under irrigation. Box 715, McCook, Nebraska. Family preferred.

LOCAL REPRESENTATIVE WANTED.—Splendid income assured right man to act as our representative after learning our business thoroughly by mail. Former experience unnecessary. All we require is honesty, ability, ambition and willingness to learn a lucrative business. No soliciting or traveling. This is an exceptional opportunity for a man in your section to get into a big paying business without capital and become independent for life. Write at once for full particulars. Address E. R. Marden, Pres. The National Co-Operative Real Estate Company, 1638 Marden Building, Washington, D. C.

FOR SALE

FERRETS. Price list free. M. Goes & Son, Wellington, Ohio.

GINSENG; bargain offerings in plants and seeds. John B. Hooker, Flycreek, N. Y.

DUROCK PIGS \$12.00 pair, registered 50c each extra. Sereno Weeks, DeGraff, Ohio.

10,000 Ferrets for sale. Write for price list and catalog, it's free. DeKleine Bros., Jamestown, Mich., Box 4.

57 acre fruit and truck farm also grocery with good trade. Write for particulars. B. F. Durham, Burden, Ind.

Cumberland raspberry plants \$5.00 per thousand. Single Comb Brown Leghorn hens, 75c each. S. H. Graybill, Richfield, Penna.

Dickey's Old Reliable Eye Water cures sore eyes, strengthens weak eyes. Don't hurt. Mail 25c. Dickey Drug Company, Bristol, Tenn.

GINSENG—More money in growing ginseng roots than any other crop. Seeds and roots for sale. Circular free. D. E. Baughay, Chambersburg, Pa. Route 1.

EXPERIENCED FRUIT GROWER and general farmer, desires management Fruit Farm or Country Estate; percentage, shares or salary. Warren, 216 Burnet, East Orange, N. J.

BULL CALF FOR SALE. Pure-bred Registered Holstein, four months old. Sired by Lord Netherland DeKol Dot Jennie. Mostly White. Fine individual. Good producing strain. Price \$50 for prompt sale. Madison Cooper, 120 Court St., Calcium, N. Y.

OPPORTUNITY

LARGE MANUFACTURING COMPANY who have been engaged in the manufacture of a power sprayer, which is in good demand, would sell this portion of its business at a low figure to make room for its increasing business in other lines. Valuable patented features make it a leader as well as a good seller. Rare opportunity for one desiring to enter the field. Address A. L. Lovejoy, Amo Apartments, Detroit, Mich.

FARMS WANTED

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property free. American Investment Association, 32 Palace Bldg., Minneapolis, Minn.

FARMS FOR SALE

MONEY-MAKING FARMS: 17 States; one to 1,000 acres, \$10 to \$50 an acre; live stock, tools and crops often included to settle quickly. Mammoth Illustrated Catalogue No. 35, free. E. A. Strout Farm Agency, Station 1233, 47 West 34th St., New York.

REAL ESTATE WANTED

SELL YOUR PROPERTY quickly for cash, no matter where located, particulars free. Real Estate Salesman Co., Dept. 22, Lincoln, Neb.

MISCELLANEOUS

LEARN TO DRAW AND PAINT at home. Best mail courses. Lowest tuition. Write for booklet. Enkebol Art School, Omaha, Nebraska.

BUY NO BARREL CAPS until you get a sample of the AFPCO SHIPSAFE cap. The deep, close corrugations make them much better for either top or bottom. Write for sample stating about how many you will use. American Paper Products Company, 300 Bremen Ave., St. Louis, Mo.

GINSENG

Large profits made growing Ginseng and Golden Seal. Free descriptive booklet of Ginseng and Golden Seal Cultures with price list of roots and seed. ALBAN TAYLOR, Box C, E. Rochester, O.

Reasons Why You Should Investigate the SANDOW Kerosene Stationary ENGINE



It runs on kerosene (coal oil), gasoline, alcohol or distillate without change of equipment—starts without cranking—runs in either direction—drifts governed—hopper cooled—speed controlled while running—no cams—no valves—no gears—no sprockets—only three moving parts—portable—light weight—great power—starts easily at 40 degrees below zero—complete, ready to run—children operate them—5-year iron-clad guarantee—15-day money-back trial. Sizes 2 to 30 H. P. Send a postal today for free catalog which shows how Sandow will be useful to you. Our special advertising proposition moves you one-half cost of test engine sold in your county. (107)

Detroit Motor Car Supply Co. 10 Canton Ave., Detroit, Mich.

Whole Business Section of Town Roofed with

J-M ASBESTOS ROOFING

In the city of Coshocton, Ohio, practically every good business block and factory erected or re-roofed within the last 15 years is covered with J-M Asbestos Roofing.

The Meek Co.—with about 4 acres of roof space—has covered all its buildings with J-M Asbestos Roofing. So has the James B. Clow & Sons Co., with nearly 3 acres of roof, and the H. D. Beach Co., with nearly 2 acres of roof. Likewise, the Pope-Gosser China Co., Coshocton Brick Co., Coshocton Glove & Garment Co., Hunt-Crawford Corrugated Paper Co., Hay Huston Axle Co., Coshocton Ice & Cold Storage Co., Novelty Advertising Co., and others too numerous to mention.

Could we induce such shrewd business men as the heads of these mammoth manufacturing plants to use J-M Asbestos Roofing if it had not given their next-door neighbors entire satisfaction?

The business men of Coshocton, as well as in all parts of the country, have been so unanimous in adopting this ready-to-lay stone (asbestos) roofing, because we have proved to them, as we can also prove to you, that it is absolutely fire-proof; that it contains nothing that can rot, melt, crack or deteriorate with age; and that, because of its long life and the fact that it never needs coating or repairs, it costs less per year of service than any other roofing.

J-M Asbestos Roofing is suitable for all types of buildings. Our nearest Branch will fill your order if your dealer does not sell it. Write today for Booklet No. 1635 which tells all about the advantages of this roofing over other kinds.

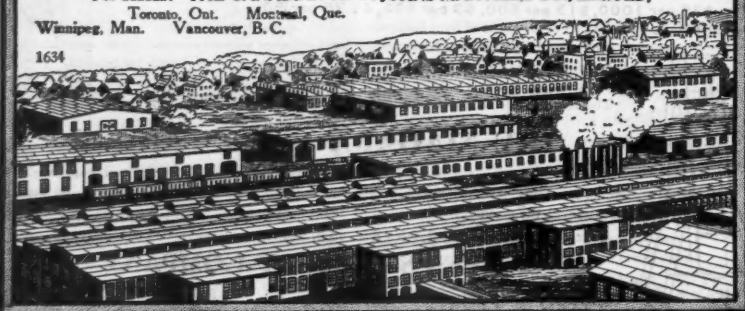
H. W. JOHNS-MANVILLE CO.

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1634



What Will the Apple Crop Be This Season Throughout the Entire Country?

By the Editor.

This is a question which is interesting a great many people at this moment. Every year there is a contest between the apple buyers of the country and the apple growers in making an estimate of what the crop will amount to in various parts of the country. It is for the interest of apple buyers to make it appear that there is a large crop, and to the interest of apple growers to make it appear that there is a light crop. In considering the question we must take into account the possibility of exaggeration on the part of either of the above two classes of men and make an effort to size up the prospects of the apple crop without bias.

It is conceded that the apple crop of Western New York is very large, much larger than usual, and that owing to frequent showers through a long period the apples of Western New York will be unusually large and fine, with less culls and wormy apples than usual. But it should be remembered that a severe gale of wind may reduce this yield of apples one-half by blowing off the fruit and bruising it.

It has been claimed that the apple crop throughout the great west is light or far below the average, but this claim the apple buyers contest. They say that Kansas will have 7,000 cars of apples this year as against 2,000 cars of apples last year, and that Arkansas also shows a heavy increase in total quantity, but the quality there is poor. The apple crop is light in Minnesota, Iowa and Nebraska.

It is claimed that the Pacific coast will have one of its largest crops and here is where the fancy grade of boxed apples comes from most largely, the crop being estimated at 32,500 cars as against 15,000 cars a year ago. At least this is the report of the apple buyers, which probably the apple growers would contest.

The apple buyers concede that the southern orchards will show a decrease of at least ten per cent. including North Virginia, West Virginia and West Maryland. The apple buyers claim that Canada has about ten per cent. more apples than last year notwithstanding a decrease in Nova Scotia of 500,000 barrels. It is stated that the Hudson River Valley crop will not be over half the full crop.

National Apple Day.

The approaching autumnal harvests foreshadow nearness of annual returning national apple day. For the past eight years the third Tuesday in every October has been recognized by universal approval as the date to give concentrated thought and action for further promotion of our national fruit. It will be observed that the date this year falls on Tuesday, October 15.

It is obvious that passing years bring many changes in conditions of orchards and new phases of the industry are continually forced upon public attention.

It is manifest that apple growers need wider sweeps to their horizon when endeavoring to observe the general situation as to outcome of annual apple harvests. There have been years when the crop in the aggregate in this country did not exceed 23,000,000 barrels, yet because the yield was abundant in some spots, it was thought not worth marketing and was allowed to perish. Such growers seemed to forget that in 1896, with 15,000,000 people less to provide with fruit the annual crop was 69,000,000 barrels and there were no complaints of a surplus. With conclusions rapidly reached in these later years, we are forcibly reminded of the remark of Shakespeare: "Times are sadly out of joint."

It is not to be anticipated that remedies for all evils in apple culture can be found applied by studying the apple proposition one day in the year any more than an individual can make his calling and election sure by attending church one day in the year; especially so if he does not care to heed any lesson that may be imparted.

At the time of annual harvest, with its day of retubation, the faults and failings of growers are exposed to the gaze of the world and it should seem to be a fitting time to take matters seriously, with renewed determinations to avoid unnecessary mistakes in the future.

Observe for a moment some pictures presented at the present season. Here we have some orchards loaded with the choicest fruit, all beautifully colored and made attractive in countless ways. Such apples will sell readily in prices ranging from \$3.00 to \$5.00 per barrel, on the other hand there are orchards and the sight is too frequent, where the trees for lack of spraying and other evidences of proper care, are showing fruit badly affected with scab and showing abodes of all manner of injurious pests. No one wishes to buy such fruit at any price.

It is patent to all observers that there are orchards in the United States readily worth from \$500 to \$4,000 per acre; it is equally

apparent that there are orchards if fruit men were obliged to continue their existence as orchards they would not be burdened with them, should they be offered as free and gracious gifts. It is to hoped that a continuous general observance of national apple day will have a timely tendency of shortening distances between widely diverging points. Many growers are complaining this year of difficulty in securing sufficient number of barrels for packing their products. Unless steps are taken to remedy this situation it will increase in formidable proportions with each passing year.

A general diet of apples all over the country is especially urged for national apple day. It would require not less than 500,000 barrels to supply the demand to serve apples on all family tables one day in the year and such use would promote health and measurably relieve some overstocked markets.

The beautiful custom of sending apples to orphan homes, hospitals and other beneficent institutions in observing the day should by all means be made perpetual.—James Handy, Quincy, Illinois.



The Gooseberry.—The most important thing connected with gooseberry culture is judicious pruning. This work, which cannot be neglected, is done from late autumn to early winter. Many of the vigorous-growing shoots and branches are annually removed, and only a moderate supply of young growing wood is left. The bush is made to assume a cup-shaped top; with slightly drooping branches. The cultivation and manuring are like that for the currant.

Where Do These Sayings Come From?

The borrower is servant to the lender. Who so diggeth a pit shall fall therein. A living dog is better than a dead lion. He that maketh haste to be rich shall not be innocent.

Whatsoever thy hand findeth to do, do it with thy might.

A good name is rather to be chosen than great riches.

The race is not to the swift, nor the battle to the strong.

If thou faint in the day of adversity thy strength is small.

Even a fool, when he holdeth his peace, is counted wise.

They have sown the wind, and they shall reap the whirlwind.

Pride goeth before destruction, and a haughty spirit before a fall.

Seest thou a man diligent in his business, he shall stand before kings.

The fathers have eaten sour grapes, and the children's teeth are set on edge.

A Little Boost for Apples as Beautifiers

"If women knew that eating apples will do more to make their complexions beautiful than all the face remedies in the world they would eat them morning, noon and night," said U. Grant Border, of Baltimore, in addressing the International Shippers association.

"Five years from now," continued Mr. Border, "when the countless apple orchards that have come into existence in the last few years begin full crops, the annual apple production of this country will exceed 100,000,000 barrels."

Other speakers declared that the freight and storage charges were responsible for the increase in the price of apples to the consumer in recent years.

"Eat Beans as Cheap Substitute for Meat," Says Wiley's Successor.

If you want something to take the place of meat that won't turn profits over to the beef barons and will save you money in these days of high prices, eat plain beans.

This was the remedy suggested today by Dr. R. E. Doolittle, Dr. Wiley's successor as Uncle Sam's chief of the pure food board.

"Eat beans if beef is too expensive," said Dr. Doolittle. "They are the best substitute for beef. One should not eat

meat anyway, more than once daily, depending, of course, upon the physical condition and employment of the person. Hard workers need more meat than those in sedentary work. It seems to me the harder a man works and the lower his wages, the more meat he needs. Meat is protein. Protein is strength.

"But beans are high in protein percentage. Not canned beans, but home baked beans are the best. Canned vegetables of all kinds are not as good as fresh.

"Other substitutes for meat, of high protein value, are peas, all kinds of nuts, cheese and milk.

"Mind you, I'm not recommending a vegetarian diet as the best and only diet, but substitutes for meat. Sugar, too, is healthful to give physical strength. Oatmeal contains some fat, but breakfast foods, generally, are merely starchy.

"If fish cannot be considered meat, I would recommend fish as a substitute for meat, but generally fish prices follow those of meat."

Banks—What are you looking so glum about, old fellow?

Snoggs—I proposed to the Widow Buggins last night.

Banks—And got rejected, eh?

Snoggs—No; accepted!

Socrates Said.

"It gives me far more pleasure to hear about the good qualities of a living woman than to see a beautiful one painted for me by Zeuxis." Plato said that tragic poets are not required in the ideal state, "for we also according to our ability are tragic poets, and our tragedy is the best and most beautiful; our whole state, you know, is an imitation of the best and most beautiful life."

The Good Book Says.

Great men are not always wise. A soft answer turneth away wrath. As thy days, so shall thy strength be. How long halt ye between two opinions. A merry heart maketh a cheerful countenance.

Go to the ant, thou sluggard; consider her ways, and be wise.

Man that is born of a woman is of few days and full of trouble.

Who is this that darkeneth counsel by words without knowledge?

The stone which the builders refused is become the headstone of the corner.

Behold how good and how pleasant it is for brethren to dwell together in unity.

The path of the just is as the shining light, that shineth more and more unto the perfect day.

Wisdom is the principal thing; therefore get wisdom; and with all thy getting get understanding.

"You ought to save money for your family." "Yes," replied of Hardpate of Cripple Creek, "but—" "But what?" "My family won't let me, for we are living in Denver."

"What are you coming in with your milk pail empty for?" demanded the Goose Gulch rancher. "Didn't th' old cow give anything?" "Yep," replied the new chore boy, "nine quarts and one kick!"

WIZARD
SHEEP MANURE
Dried and Pulverized

Highly concentrated pure manure—unequalled for forcing quick growth and early maturity of greenhouse crops. Best natural fertilizer for fruits and vegetables under glass or in the field. Supplies both plant food and humus.

One Bag Equals Whole Wagon Load of Barn Yard Manure

Sold by best seed and supply houses. Ask for Free Growers Booklet and Prices with freight rates.

The Pulverized Manure Co.
27 Union Stock Yards, Chicago

FREE TO GIRLS

We want to send to every little girl a Talking and Sleeping Doll. She is the prettiest, daintiest and sweetest dolly you ever saw. She closes her pretty eyes and goes to sleep. She will say "Papa" and "Mama" as plain as a real little girl, whenever you want her to. Stylishly dressed with lace trimmed hat and gown, shoes and stockings; a foot and a half tall. Send No Money. Just your name and address and we will send you a "Mama" and "Papa" Talking Doll and I will tell you how to get her. Not One Cent of Your Money is Required. UP-TO-DATE, Sept. 33 Indianapolis, Ind.

SALESMEN WANTED

Do you want a good position where you can earn from \$1,000 to \$5,000 a year and expenses? There are hundreds of such positions now open. No former experience as a Salesman required to get one of them. If you want to enter the world's best paying profession our Free Employment Bureau will assist you to secure a position where you can earn good wages while you are learning Practical Salesmanship. Write today for full particulars list of good openings and testimonial letters from hundreds of our students for whom we have recently secured good positions paying from \$100.00 to \$500.00 a month and expenses. Address nearest office, Dept. 153

National Salesmen's Training Association
Chicago New York Kansas City Seattle New Orleans Toronto

Repeating Air Rifle FREE

Shoots 350 times without reloading. A beauty for boys. Write me your name and I'll send you my easy plan. R. L. Hogg 21 Factory Street, Springfield, Ohio.

Don't Delay Buying A Farmers' Favorite Cider Mill and Press

Cider making time is right at hand. Don't depend on your neighbor's press. Have one of your own. A FARMER'S FAVORITE Cider Mill and Press Combined—one that grinds your apples into a fine pomace and gets all the cider. The Farmers' Favorite is made in sizes to suit every farmer. If you want only a small one, we have that; if you want a large one, we also have that. Tell us about how many barrels you want to grind and press per hour, and we will tell you all about the Farmers' Favorite that best suits your needs. Write at once.

Cutaway Harrow Co., Box 865 Higganum, Conn.

APPCO Corrugated Barrel Caps

\$6.00 PER THOUSAND

Deeper Corrugations. Better Glueing. Better Fiber.

APPCO Caps take up the squeeze and preserves fruit. Looks better, sells better.

Standard 16½-inch Size, - - - - per 1,000, \$6.00
Box Lining, 11 x 18 inches, - - - - " 6.00

Don't Wait Too Long, But Get In Your Order At Once. Address,
American Paper Products Company, 254 Bremen Avenue, ST. LOUIS, MO.

TILE DRAINED LAND IS MORE PRODUCTIVE

Earliest and easiest worked. Carries off surplus water; admits air to the soil. Increases the value. Acres of swampy land reclaimed and made fertile. We also make Sewer Pipe, Red and Fire Brick, Chimney Tops, Encaustic Side Walk Tile, etc. Write for what you want and prices. **JOHN H. JACKSON, 90 Third Ave., Albany, N.Y.**

RHODES DOUBLE CUT PRUNING SHEAR

Pat'd June 2, 1903.

RHODES MFG. CO., 532 S. DIVISION AVE., GRAND RAPIDS, MICH.

THE only pruner made that cuts from both sides of the limb and does not bruise the bark. Made in all styles and sizes. We pay Express charges on all orders. Write for circular and prices.

APPLE BOXES

(Shipped Knock-down)
WESTERN STYLE

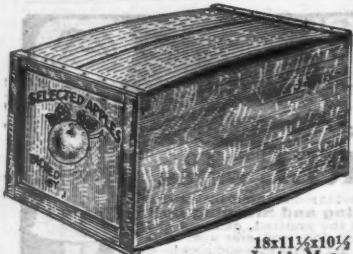


18x11 1/2 x 10 1/2
Inside Meas.

with one-piece ends and sides. The ONE BEST APPLE BOX which has the exact appearance of the Washington, Oregon and Colorado package.

Standard Bushel Size.

SOUTHERN STYLE



18x11 1/2 x 10 1/2
Inside Meas.

made with panel ends with one end printed as above. Made to meet the demand for a Standard Bushel Box at a very low price.

BOX LINING, PAPER, APPLE WRAPS, LABELS FOR BOX ENDS AND BARREL TOPS, CUSHIONS, CORRUGATED PAPER CIRCLES—EVERYTHING IN FRUIT PACKAGES.

Write for Quotations

COLES & COMPANY

109-11 WARREN ST., NEW YORK

N. B.—Either of these boxes meets the requirements of Section 1 of the Supplement to the Sulzer Bill, which has already passed the House of Representatives and reads as follows:

"Section 1. That the standard box for apples shall be of the following dimensions when measured without distension of its parts: Depth of end, 10 1/2 inches; width of end, 11 1/2 inches; length of box, 18 inches, inside measurement, representing as nearly as possible 2.173 1/2 cubic inches."

When you write advertisers
Please mention Green's Fruit Grower.

MAKE HENS LAY

By feeding raw bone. Its egg-producing value is four times that of grain. Eggs more fertile, chicks more vigorous, broilers earlier, fowls heavier, profits larger.

MANN'S LATEST MODEL Bone Cutter

Cuts all bone with adhering meat and gristle. Never clogs. 10 Days' Free Trial. No money in advance.

Send Today for Free Book.

F. W. Mann Co., Box 39, Milford, Mass.

AGENTS \$50 to \$100 EVERY WEEK

The slickest money-making proposition in the country for wide-awake agents. Carpenter selling 200 every week; Birley sold 3200 and still going. ONLY SCIENTIFIC automatic razor sharpener made; gives Barber's DIAGONAL stroke; HONES and STROPS all standard razors and safety blades. Guaranteed for life. Sells on sight. \$2 complete. 100 to 150% profit.

Write today for exceptionally liberal offer.
Secretary, THE VICTOR CO., 802 Victor Bldg., Canton, Ohio.

HONEST MAN OR WOMAN WANTED.

A large well known company about to spend \$100,000 on a tremendous advertising campaign requires the services of a bright man or woman in each town or city. The work is easy, pleasant and highly respectable and no previous experience is necessary. We will pay a good salary and offer an unusual opportunity for advancement, to the person who can furnish good references. In addition to this salary, we offer a Maxwell Automobile, a Ford Automobile and over \$3000 in prizes to the representatives doing the best work up to December 31. In your letter give age and references. Address, Ira B. Robinson, Advertising Manager, 1052 Doty Bldg., Boston, Mass.

Use KEROSENE Engine Free!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheaper, safer, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no explosion, no explosion from coal oil.

Gasoline Going Up!
Gasoline is 15c higher than coal oil. Still going up. Two points of coal oil do work of three points gasoline.

Amazing "DETROIT"
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Letters From the People.

"Prudent questioning is the half of knowledge.—Proverb.

Fruit Questions.

Mr. W. A. Vaughn, Afton, Texas, requests answers to the following questions:

1. Some of my peach trees have a warty growth just below the surface of the ground which keeps spreading around the trunk of the tree. Kindly tell me the name of the disease and the remedy.

2. I want to haul thirty bushels of peaches at a load a distance of 25 miles to market. Would you advise me to use bolster springs on my wagon to avoid bruising the peaches or would the bolster springs shake them more and thus bruise them more?

3. What is the best tool to use in cultivating a low-headed peach orchard so that it may be cultivated close up to the trunks of the trees. What do you use on Green's Fruit Farms?

Please answer through the Fruit Grower and oblige.

freely, then again some refuse to make any.

Since the discovery of Pan America, many choice seedlings have been grown from this; Mr. Rockhill of Iowa, produced the Francis and Americus which are two of the best—two others produced by Mr. Cooper, the Superb and Productive are also of the best, from my experience with ten varieties, I think Superb the best of all—it wintered much the best last winter, it is of good size, bears all it can carry, and if the bloom is picked off till July first or August 1st, spring set plants will bear full and continuous all through August, September and November, and but for the winter would bear themselves to death.

To show what could be done, Mr. Farmer in York state set 500 plants of three varieties I have mentioned above, and that fall he picked nearly 400 quarts of fine berries that sold for 25 to 50 cents per quart, and for the ground covered they brought in at the rate of \$2,000 per acre the season of planting.

The first year I set Pan America and Autumn, I let them bear all they would; in September I took one layer that had 53 berries and blossoms to the County fair, but I let them bear till they froze up and they came near bearing themselves to death. Last Spring, I could not fill my orders for plants at \$2.00 per dozen.



Two Kodak pictures of views in North Carolina. One is the home of my father and the other is a cotton field with the same group of people. I would be glad to see them in Green's Fruit Grower.—W. A. Wheelers.

C. A. Green's Reply: 1. The root growth indicates crown gall. I have heard of crown gall attacking peach trees but have never seen such an attack. It more often attacks apple trees. I know of no remedy.

2. I would use the easiest springs possible in drawing the peaches. Peaches should be picked before they have begun to soften. When peaches are firm and not ripe they will bear drawing 25 miles on easy wagon springs.

3. The disc cultivator would seem to be the best tool I can suggest for cultivating a low-headed peach orchard.

Everbearing Strawberries.

By Geo. J. Kellogg, Wis.

Editor of Green's Fruit Grower:—There are so many of your readers that are writing to me from Massachusetts to Idaho and Pennsylvania, that I will give a little of my experience here at Lake Mills, Wis. I have been growing this type of strawberries for five years, I first planted Pan America and Autumn, the first originated by Samuel Cooper of York state, a "sport" he found in a bed of Bismark, he grew enough of these to make a fine show of fruit and all through the Buffalo Exposition, and named it Pan America, this is perfect in blossom, a vigorous grower, fine large, firm fruit, but the plant makes but very few runners and we have to take up the one year old stools and divide the roots, which is a slow process. The Autumn is a pistillate, and a wonderful bearer, I counted 301 berries, blossoms and buds at one time on a stool or plant that was 14 months old, that had made no runners, no plant could mature that amount of berries. Some of them were three inches in circumference. Sometimes this variety makes runners

Now I have kept off the bloom (and I have to go over the patch every day) so to throw the strength to forming new plants, and I have some Superbs' set in April that have twenty-five nice plants and no runners at this writing, August 9th. I have eight kinds I am growing to sell, and two new varieties I have of Mr. Rockhill on trial, these were set in April; I picked off the bloom till July, then I let them bear, two of the plants have put out no runners, one has 71 berries, blossoms and buds, the other has 50 berries, blossoms and buds at this writing. One that has seven nice runners, has 21 berries, buds and blossoms. These plants are ripening their fruit now and the ripe berries measure over one inch in diameter.

The persistence of the bearing of this type of strawberries is shown in the runners that are thrown out, before they get rooted, they throw up a blossom stem, and go right to fruiting. All of these ten varieties are perfect in bloom, except Autumn and Productive.

While the price seems high at \$2.00 per dozen, they will soon make runners enough to pay. My Superb had plants large enough to transplant in July. What the price for plants will be this fall or next spring I cannot tell till October, when I will put out a price list of the different kinds. Any one wanting this, if they will enclose stamps, I will answer any questions on this new type of strawberries.

Self-Exposed.

"A multi-millionaire in a fashionable restaurant," she said, "pointed to a line on the menu and said to the waiter: 'I'll have some of that, please.' 'I am sorry sir,' the waiter answered, 'but the band is playing that'."—Kansas City Star.

Great Opinions of Knowledge.

Selected for Green's Fruit Grower

By Frank I. Hanson.

Half our knowledge we must snatch, not take.—Pope.

Learn as if you were to live forever; live as if you were to die tomorrow.—Ansalus de Insulis.

Every addition to true knowledge is an addition to power.—Mann.

He who finds the soul to knowledge, steals the key to heaven.—Willis.

The best part of our knowledge is that which teaches us where knowledge leaves off and ignorance begins.—Holmes.

Only by knowledge of that which is not thyself, shall thyself be learned.—Owen Meredith.

A life of knowledge is not often a life of injury and crime.—Sidney Smith.

Learning is like a river, whose head, being far in the land, is at first rising little and easily viewed.—Feltham.

As a rule, the more thoroughly disciplined and fit a man may be for any really great work the more conscious will he be of his own unworthiness for it, the more distrustful of himself, the more anxious not to trust himself forward.—Thomas Hughes.



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Profits From an Apple Orchard.

Let us take for a basis a ten-acre orchard, and try to figure out the cost and expenditure per acre for four years, says Farmer's Review. We will take a section of orchard containing 350 trees. I do that on account of part being grafted, and did not bear at the same time. Ten acres usually contain about 400 trees, or 40 trees to the acre. The first year we had 700 barrel of apples from these 350 trees, and they were sold at \$1.65 per barrel on the ground, or \$132 per acre. The varieties consisted of Ben Davis, Baldwins, Greenings, Spies and Kings. In the following year the crop was much lighter, only 250 barrels from the same area, at \$1.50 a barrel, or \$45 per acre. The third year we harvested a heavy crop of apples upwards of 2,000 barrels, the section referred to producing 750 barrels at \$2.25 per barrel, or \$192.80 per acre. The fourth year the apple crop in our county was almost a complete failure. Nevertheless, we harvested nearly 100 barrels off these 350 trees, at \$3.75 to \$4 a barrel, or \$43 per acre, giving a total of \$413.40, or \$103.35 as the average for four years of trees from 17 to 20 years of age.

Now let us look at the cost of production and maintenance of the trees. It would cost \$2.35 per acre for plowing. Of course that may not correspond in all districts, as you can get labor and horses cheaper in some sections of the country than others, but that is about an average. Then \$1.05 an acre for cultivating three times; \$3.75 per acre for pruning; \$8 to \$9 for a man to spray. That is the total cost for three sprayings using bordeaux mixture. Last year we used lime and sulphur, which cost a little more, for the first spraying, and arsenate of lead along with it. Then there is fertilizing at the rate of \$2.50 per acre up to \$3, for manure and ashes. It is sometimes difficult to get ashes, but we get a great deal of manure at 50 cents a load and draw it ourselves. Of course, the benefit of fertilizing is spread over a number of years. The cost of pulling at 10 cents a barrel would be practically \$9 per acre. That makes a total of \$27.60 as the total cost per acre, without counting anything for cover crops, which in some sections would cost much more than others. We generally grow clover, and if we don't we always have sufficient snow. Of course we grow the clover for its manure value. This deducted from \$103.35, the average for four years, leaves a balance of \$76.35 per acre, or \$763.50 for ten acres. We have some sections of older orchard, which, of course, give much better results.

One plantation sixty years of age, consisting of 35 Spy trees, has run as high as \$18 per tree, and even at the low price of \$1.50 per barrel has yielded \$530 per acre. —R. R. Sloan, Huron Co., Mich.

Note By C. A. Green.—I caution the readers of Green's Fruit Grower about accepting statements of extravagant yields of fruit. It is true that orchards do sometimes yield enormous crops which sell at remarkably high prices, but such exceptional yields and sales should be looked upon as unusual. I mean by this that no reader of Green's Fruit Grower should take these remarkable statements as guides. You should not figure on planting orchards and getting such crops as this on the average. While I have claimed for many years that fruit growing in all its branches is the most profitable method of occupying the soil, I have never tried to induce people to plant orchards and berry fields with the expectation of getting rich quick or of getting through a season without much work.

Large Reward Offered.

What is there in material things which offer so large reward as the planting of plants, vines and trees and particularly fruit trees? I was reminded of this yesterday when I asked my man to pick the peaches from a row of trees running across my city garden, planted three years ago. There were seven little trees. From these seven trees he picked nine baskets of large and delicious peaches. The cost of these trees would not be over a dollar. It required but 20 minutes time for my man to plant them. They bore some fruit last year. They will continue to bear more for several years. How great the reward for a little investment of money and labor. A friend tells me that he picked forty bushels of apples from one Greening apple tree one fall. A good thrifty apple tree may bear fruit for one hundred years. A subscriber has sent me a photograph of a Southern apple orchard which is 100 years old and which continues to bear good fruit. An apple tree does not cost over 25 cents. It costs less than five cents to plant it. It requires but little attention each year. Think of the reward this tree offers. You can go to any nursery and buy a grape vine for 10 cents. What possibilities there are in this vine. Planted by the side of your house where it can climb over the southern wall and over the porch it will begin to bear fruit from the third year and may

continue in bearing for 100 years. Every season you may gather an average of a bushel or more of delicious fruit. But the great value of this vine is as an ornament to the home. What makes a place look more homelike than a grape vine over the piazza. The children that pass are attempted to pick now and then a cluster of fruit, but you are sure to have left unmolested those growing higher up. Think of the beauty of the cherry, pear or plum tree and of the wealth of fruit which these trees will produce year after year, not only during your life time but during the lives of others who come after you. The man who sells you good vines, plants and trees true to name, and who delivers them at your door in prime condition should be considered a public benefactor. C. A. Green.

He Takes too Much Pains with His Work.

The paintings of Alma Tadema, the noted artist who recently died, have been reviewed by the critic who says that the artist has taken too much pains with his work and that as a result Tadema's beautiful paintings are worthless as works of art.

The same criticism has been made of Bouguereau, the great French master, who died about six years ago. The critics found fault with Bouguereau's perfection.

It seems to me that the great fault of most mortals in whatever they attempt is in not taking enough pains with their work. Most of that which is written either in verse or prose is too hastily prepared and rushed into print without deliberation. We have an example of painstaking in composition in Grey's "Elegy in a Country Churchyard" and in "Paradise Lost," in Shakespeare, Dante, Goethe and other great writers of the world. But in painting pictures the critic holds that the artist must not take too much pains, or if he does take great pains the artist must conceal his painstaking efforts. Thus the painter of today who would be successful, after painting the scene or portrait over and over, with great deliberation, and having reached a point which satisfies his ambition, must go over it again with his brush and bring about the same result which was last attained by fine careful strokes, replaced by bold, dashing strokes, giving the same effect. It is expected that these broad strokes with a free hand will remove all traces of painstaking, and that the effect will be as though the work were done spontaneously, the labor of but a few hours.

It is true that the old masters were not ashamed to show in their canvases that they were deliberate and that they labored long over their work. It would appear to be of only recent date that the artist is expected to conceal his art from the observer. Possibly in less than a hundred years the critics will hold different views in regard to their standards of criticism. If a poem or a story shows deliberation and character in composition and thought, I see no reason why a painting should be less pleasing for the reason that it gives evidence of great effort. C. A. Green.

Where the Apples are Grown.

So much has been published regarding export of apples from the United States that one might be pardoned for thinking that this country is the leader in supplying foreign countries, says Post Express. When the export of apples is considered, one naturally thinks of Great Britain as the largest foreign consumer. It is of interest and information to note that last year, of the apples imported by the United Kingdom, Canada furnished 1,457,837 hundred weight, Australia 459,530, the Channel Islands 13,827, and other British territory 627, a total of 1,931,821 hundred weight from British possessions, as against 1,155,270 from the United States and 245,527 from other foreign territory; 59 per cent. in favor of British territory. Canada's receipts for apples sent to the mother country in the shipping season of 1911-12 amounted to \$4,678,245; the United States received in the same period for apples sent to Great Britain \$788,861.

Strawberries Not Fruiting.

There are a number of causes why strawberries do not fruit. Some varieties are naturally almost non-productive. We find this is the case with some wild as well as with some cultivated kinds. Some produce pistillate flowers which do not have sufficient pollen to fertilize them. Occasionally unfruitfulness may occur by reason of the flowers being frosted or injured in some other way, as by drying winds. I suggest that the thing for you to do would be to get a small stock of some good varieties of strawberries, such as are successfully grown in the vicinity in which you live.

"Pa, what is an incubus?" "Half the time nowadays, my son, it is either an incubator or an automobile."

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We have at Green's Fruit Farm a moderate sized apple orchard, all Baldwins, which we offer for sale on the trees. Or if not sold on the trees, the buyer to pick, sort and barrel himself, we will sell the fruit in small lots as purchaser may desire. We prefer to sell the fruit on the trees for the reason that we can hardly spare time to pick the apples of this orchard. The trees are heavily laden. The fruit has not been thinned though it has been carefully sprayed, thus the fruit is not of the largest size. Correspondence solicited. C. A. GREEN, Rochester, N. Y.

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HEALTH DEPT.

"Pulmonary consumption each year kills in the United States alone 413,000 persons, says Good Health. A timely application of known scientific facts might save all these persons alive. The outdoor life, the simple life, the cold-air cure, and return to natural methods are saving thousands. Everybody ought to know that there is a way out of the wilderness of disease. There is health for every one who wants it, who is willing to curb his appetites, and put himself in training for better things. Everybody ought to know about it. Tell your neighbors.

Bright's Disease.

Albumen in the urine may occur without any established disease, but is not a constant condition without grave reasons, says Witness.

Pressure of circulation, as in heart disease, and also in pregnancy, may cause albumen and swelling of the feet.

In cases of Bright's disease casts of the tubules of the diseased kidney are also seen under the microscope with eye symptoms. Swelling begins in the face.

People often live for many years with heart disease, and also with chronic Bright's disease of the kidney.

A mild climate is beneficial in Bright's disease, because perspiring is so helpful to relieve the kidneys by carrying off water through the skin. The bowels also should act pretty freely, for this leaves less water to be excreted by the crippled kidneys.

Meat is bad for such cases. Beef tea is allowed to weak patients occasionally. Chicken broth, fish, milk, cream and most vegetables can be taken, with breadstuffs and milk pudding.

Clothing must be comfortable. A house kept at a warm temperature is needed to prevent chills. A sponge bath in a warm room daily is good. Steam baths are used when twitchings or swellings of the limbs or body occur.

Fruit is useful if it agrees. It is best to have a doctor examine the heart, as it may need attention.

Pain After Operation.

Pain, as some one has said, is the language of decay; and for hundreds of years great surgeons and physicians have striven earnestly to make this language obsolete. When chloroform was discovered it was announced that pain had been conquered; but the anesthetic was potent only to deaden pain during an operation, or to allow a patient to rest more easily after a period of constant pain. It was the late Lord Lister's ambition to discover some anodyne for pain after an operation, but he died without realizing his boon to humanity. It is a fact known to science that the most distressing part of pain due to an operation comes directly after it is over, and popular dread of all surgical operations is aimed largely at the suffering that the patients expect to undergo after recovering consciousness. But now it is expected that this dread will soon be a thing of the past. According to the "London Lancet," Dr. Ross simply infiltrates the area of the operation wound, before making that wound, with a solution of quinin and urea hydrochlorid, and this, he says, produces a total absence of pain in the area of operation after the patient has recovered from the general anesthetic. The effect of this infiltration is to produce an almost total loss of sensation in the part for a length of time varying from twenty-four hours to six days, with absolutely no return or vestige of post-operative pain, until healing is complete.

Hardening of the Arteries.

Nearly twenty years ago, in the early days of his practice, the writer had an experience which he has never forgotten. It was that of seeing two apparently healthy and vigorous men, neither over fifty years of age, each stricken down and gathered to his fathers after less than an hour's warning, on two successive days.

The cause in each case was angina pectoris, sometimes called neuralgia of the heart, but in reality merely one form of arteriosclerosis, or hardening of the arteries.

Arteriosclerosis in one form or another is quite common, and probably even more common than we realize, owing to the fact that it is hard to diagnose until well advanced.

The causes are many, but those most common are too hard work, improper diet, and the use of alcoholics. The last two are certainly preventable causes, and the first is often so.

Severe physical exertion, especially if begun early in life and long continued, is

most certainly a serious factor. It is this which is the cause of the disease in so many hard-working men. Improper diet, and this includes improper methods of eating proper foods, is the most common cause in those who do not do hard manual labor. Alcohol may be a factor in either case. Women are not by any means exempt, but it is a well-known fact that the disease is seen far less often in women than in men.

As regards diet, any food or any method of eating which tends to cause autotoxemia tends to cause arteriosclerosis. Excessive meat-eating should be avoided, and this includes fish, eggs, cheese, and milk. Foods rich in lime, extractives, and volatile oils do harm; meats, for example, are rich in extractives; onions, cabbage, and all food having a high odor of this sort when cooked contain volatile oils. Lime is found in many foods, but perhaps hard water is the most dangerous thing in this line. Simple, properly cooked, and properly eaten foods, what we might call natural foods and natural eating, are entirely harmless.

All physicians agree that diet is one of the most, if not the most, important factor in prevention and in a cure, so far as a cure is possible. Bear in mind, however, that this does not mean starvation. One of the factors in arteriosclerosis is a weakening of the coats of the arteries. To prevent this, proper nutrition is necessary; hence starvation, by preventing such nutrition, would actually tend to make matters worse.

In general, I should say, eat simple foods, not complicated combinations; eat them thoroughly; avoid a great variety at any one meal; do not eat simply because it is meal time; and stop eating the instant the appetite is satisfied; in other words, do not try to tempt the appetite in any way whatever.—Ernest F. Robinson, M. D., in Christian Endeavor World.

Rheumatism.

Nearly every form of rheumatism affects the joints and inflames the system, if it becomes chronic. Since it is a disease of the blood, it has this inevitable tendency. Few, even of those who believe that they have recovered from it escape without souvenirs of the visitation in the form of an enlarged joint or two, or a slightly misshapen member. One of the most simple and effective remedies is to go to the hot springs for a month or so as well as to chew dried rhubarb root or use a combination of salicylate of soda and rhubarb as prepared by the druggists.

Common Colds.

Common colds would become one of the most uncommon things in the world if people would washout their nasal passages properly night and morning. And this desirable state of affairs is coming, according to Dr. Mary McMillan of New York City. Dr. McMillan believes that in the next generation mothers will make their children douche their noses and ears with salt and warm water every morning, just as regularly as they are made to brush their teeth and wash their hands.

This douching, in the opinion of several other physicians who spoke at the meeting is very necessary. Dr. Jacobi, who spoke of adenoids, said that operations for their removal were altogether too frequent nowadays. He asserted that most operations performed for adenoids could be avoided if parents would only douche the children's nostrils and ear passages with half a teaspoonful of salt and a cup of warm water morning and evening. While taking it the patient should sit straight up, throw the head back, open the mouth and draw in the solution through the smaller nostrils. Colds, tonsillitis and even snoring and restless sleep could be prevented in this way.

One cause of colds in children, Dr. Jacobi said, was the practice of putting them in short socks and leaving the calves of their legs bare. "This is done," he said, "not by women, but by 'ladies,' who ought not to have any children—and frequently the undertaker gets the children they have."

Value of Hot Drinks.

Hot internal applications by way of the mouth are valuable aids in the treatments of various ailments and disorders, even plain hot water many times being all that is needed, says The Commoner. If any one doubts the value of heat administered through the stomach as a stimulant to the entire organism of the individual, let him try the effects of a bowl of well-seasoned broth or soup, piping hot, when "out of order." A well known physician says, "I have labored with patients suffering from severe shock, applying the whole category of remedies, hypodermically, and hopelessly in some cases, nothing bringing about the desired result, when a cupful of highly seasoned hot broth administered would almost instantly quiet the restlessness, stimulate the enfeebled heart to better work, cause the patient to drop to sleep, and, if any value existed in the

hypodermic medication previously administered, seem to render it in a very short time of its fullest value and effect to the patient, diffused and directed quickly and easily to the parts and purposes intended; while, without the administration of heat internally, even hypodermic medication seemed as inert and valueless as though the applications had been made into a tin horn." He adds, "I would rather take chances on my own life in a case of pure shock with an occasional well-seasoned cup of hot broth than with full doses of alcoholic stimulants, strychnine, nitroglycerine, etc., provided I must confine myself to one or the other." It is well known that when one is exhausted, or worn out with worry or labor, a cup of hot broth, or tea or coffee, or even copious draughts of quite hot water is one of the best stimulants known and always easy to be had, with no bad effects, such as alcoholic stimulants are apt to leave. In cases of internal cramps, spasms, and like pains, the internal hot bath, by way of the mouth is often a specific, and all that is needed, giving comfort instantly.

A hunched mind is as bad as a hunched body.

Kickerly—Here, waiter, what are these chops—lamb or pork? Waiter—Can't you tell by the taste? Kickerly—No. Waiter—Well, then, what difference does it make?

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Editor fruit inc "peculiar problems in other United S

While here tha country, fruit com but one however tree. in ary, in begin to of course twigs beg weather, on into th as far as practical ment and the begin what coo properly and if th at this p roots is will pene new grow growth in it is th trees tha and early country.

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The Fruit Industry in Southern Arizona.

Editor of Green's Fruit Grower:—The fruit industry of Southern Arizona is "peculiar to itself," and presents some problems different from those encountered in other fruit growing sections of the United States.

While we have a much longer season here than in the Northern part of the country, and some varieties mature their fruit consequently earlier, no trees bear but one crop of fruit each year; there are however two periods of growth for the tree. In early spring, usually in February, in the Salt River Valley, many trees begin to blossom and put out foliage, and of course the growth of the trunk and twigs begins also; with the coming of hot weather, in June or July, and continuing on into the latter part of August, the trees as far as new growth is concerned are practically dormant, though the development and ripening of fruit continues; with the beginning of longer nights and somewhat cooler weather, if the trees are properly cared for, a new growth begins, and if the trees are given plenty of water at this period, and the earth about the roots is kept stirred so that the water will penetrate well into the earth, this new growth may equal the usual spring growth in the colder parts of the country; it is this fact of the double growth of trees that accounts for the rapid growth and early maturity of fruit trees in this country.

Peaches and plums will usually bear the second season from planting. That is trees that were set last year are bearing this season, but those most careful and experienced do not allow their trees to bear until the third season, as the tree makes a larger growth, and is more able to bear a better crop the following season; there are several cases of some growers who have allowed some fruit to ripen, one grower last year gathered peaches from Belle of Georgia tree, set the year before to the value of \$265 per acre, one man this season gathered \$40 worth of apricots from two trees set last year, and the same man picked a ten quart pail full of plums from two Gonzales plum trees set last year. I mention these instances to show the rapid growth of trees here, and to emphasize the importance of taking good care of the trees so as to obtain the growth of both spring and fall.

There is one point in the care and management of trees in which successful growers are not agreed, and that is as to the advisability of cultivating the trees after the second or third season, most of them agree that it is better to cultivate the first season or two, but with this important point that they either grow vegetables, melons or some cover crop through the hot weather; the idea is that the sun is very hot here and of course the bare earth radiates the sun's heat so as to make it even more intense, but if a cover crop is grown, then the earth around the tree is loosened before each irrigation if necessary to allow the water to percolate through to the roots and beyond. Some however practice clean cultivation the year through, and with apparently good results, but as good results as any judging from the quantity and quality of fruit is obtained from orchards where the weeds are growing, and several of our most successful growers make no attempt to keep down the growth of weeds, Johnson grass and other growth except to mow it off occasionally.

Some have gone so far as to set trees, both citrus and deciduous in alfalfa fields, leaving only a narrow strip along the rows to be kept cultivated, the general practice being such as to warrant the belief that a cover crop is better than a dust mulch.

All varieties of citrus fruits succeed well here, and with the exception of cherries, most varieties of other deciduous fruits do splendidly, apples however, do not succeed as well as in the cooler climates. The small fruits, strawberries, blackberries, and grapes do especially well. There are comparatively few insect enemies or fungus troubles. Thrips have damaged peaches to some extent, and the pear blight was particularly bad this past spring, owing to its being unusually cool for a longer period than common. Keifer pears were not affected by blight. The crop this year has been good for nearly all fruits, and prices have been remunerative.—M. E. Bemis, Arizona.

Recipe for Keeping Cider Sweet.

It is best to make the cider late in the fall from sound apples. Put into each barrel of cider one-half pound of ground mustard, two ounces of salt, and two ounces of pulverized chalk. Put these ingredients in a little of the cider and after stirring it up well, put the mixture in the barrel and shake it up well. Another good way to keep cider sweet is to bring it to the boiling point, skim it well, and seal it air tight in bottles or fruit jars while hot. Treated either way, the cider should be kept in a cool cellar.



Bargains in Trees for Fall Planting

Send in your orders now for planting in October and November

WHY YOU SHOULD PLANT IN THE FALL

There are many reasons why fall is the best time to plant hardy vines, shrubs and trees. There is more time for preparing the soil in the fall, more time for planting and for making plans than there is in the spring. The soil is in better condition for planting in the fall than in the spring. Fall is considered by planters and orchardists more desirable than spring as the roots of the trees get a firmer hold on the soil during the winter and start to grow before it would be possible to set out stock in the spring. For this reason they can better stand the severe dry spells and droughts of summer. Some things cannot be secured early enough in the spring, therefore if planted in the fall may gain nearly a year's growth. Do not plant strawberries, one-year cherry trees, peach trees, rose bushes or gladiolus buds in the fall, for they will not endure the winter well, being only half hardy.



To Those Who Have Received Our Catalog Issued This Spring, 1912: For fall delivery we have a complete stock of everything offered in this catalog except strawberries.

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STANDARD PEARS—Clapp's Favorite, Duchess, Gans, Kieffer, Louise Bonne, Wilder.

DWARF PEARS—Anjou, Clairgeau, Clapp's Favorite, Duchess, Gans, Koonce, Kieffer, Lawrence, Louise Bonne, Seckel, Vermont Beauty.

PLUMS—Thanksgiving Prune.

CHERRIES—Early Richmond, English Morello, Montmorency, Ostheim.

QUINCES—Bourgeat, Missouri Mammoth, Meech's, Orange, Rea's Mammoth.

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YORK IMPERIAL: This apple is the leading variety in Pennsylvania. It is very popular because it sells very easily. It is a regular as well as heavy bearer. Skin is yellow covered with stripes and splashes of red.

TOLMAN SWEET: This is unquestionably the best sweet variety. The apple is medium in size, light yellow in color, the flesh being white and very firm and fine in texture. It is an early and heavy bearer and unusually fine for baking.

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Should Strawberry Beds or Plantations Be Cultivated?

The old rule established by strawberry growers many years ago was that strawberry beds or plantations should not be cultivated between the season of blooming and the end of the picking season.

I see but two reasons for this old rule. First, by cultivating between the rows and by hoeing between plants the soil is loosened so that when a shower of rain comes the berries are apt to be covered with sand. Second, the roots of strawberries lie near the surface of the soil and deep hoeing or the ordinary trend of the cultivator teeth will sever many roots and reduce the size of the crop.

My practice has been to continue cultivation before and after blossoming but to give very light cultivation so as not to sever any roots. This shallow cultivation keeps the soil mulched with a loose covering of soil and gives much larger fruit and more fruit than could be secured without this cultivation.

Nevertheless it is my opinion that any serious disturbance of the bed or plantation after blossoming time is not helpful to the crop of fruit. Suppose after the berries blossomed I desired to cut out half of the plants with a hoe. My opinion is that this would not help the berry crop but that if these plants were to be removed

these and they did not grow well. They are now about half as large as those set early of the same plants and same variety. It is also more work to set plants later as they require more pruning, so I think the best time to set is about old planting time or a little before.—R. E. Edgerton, Mich.

Planting Trees and Vines.

It is often asked, "When is the best time to plant trees and vines?" After many years of planting in fall and spring my experience convinces me that fall planting for most species of trees and vines is much the best.

In fall planting they get the benefit of winter and early spring rains, which, some years, make double the growth. The trees that should be planted in fall or during the winter when the ground is not frozen, are cherry, plum, pear, apple, and most other trees. Peach trees may be planted in the spring, but I have planted them in the late fall and winter, and they have made a better growth than those planted in the spring. Often spring planting has to be delayed because the ground is too wet. In fall planting the soil should be banked around the tree from six to ten inches high; in the spring, as soon as the leaves begin to come out, this mound should be leveled down. This answers for



they should have been removed the previous season immediately after the strawberry harvest was ended.

I am surprised not to find in the fruit growing publications and the farm publications warnings of the danger of getting grass and weed seeds in the strawberry beds, after they have been carefully hoed and weeded all the season, in the mulch which is applied in early winter. Instead of hearing words of caution I find the oldest strawberry growers advising the use of wheat and rye straw as a mulch, when they must know that there is grain in this straw which will spring up in the strawberry beds and be as bad as the worst weed. And when these old strawberry growers write advising a mulch in winter and the application of barnyard manure, they must know that millions of weed seeds are sown over the strawberry beds in the manure, but they raise no warning cry to the inexperienced.

Planting Strawberries Early or Late.

Green's Fruit Grower: Please find enclosed photograph of my strawberry patch which is 60 by 232 feet and grown in the single hedge row. I sold 70.45 from the patch. I note what T. C. Kevitt says about not setting strawberries too early. From the experience I have had I do not agree with him. When I first started growing berries my greatest trouble was to get them to live, losing from 75 to 80 per cent. This year I set out 11,000 and lost very few. I bought 6,000 plants which I ordered sent on April 15, which date I did not notice fell on Saturday; but they were sent and I received them on Monday. I opened my last crate on Friday. These were all set before I planted my oats. There was one morning when I went out to set plants it was so cold I had to use gloves and there was a little crust on the ground. I lost very few of these plants and they grew fine. There were a few of my own plants that I did not set out until late or about corn planting time. I lost a lot of

the first cultivation. For this leveling I use a four pronged potato digger, the prongs standing like that of a hoe.

Blackberries and the red raspberries that grow from sprouts and root cuttings like blackberries, raspberries that are propagated from the tip end by layering, and strawberries, as a rule, grow best planted early in the spring, but I have good results from planting in the late fall and winter by mulching two to three inches with straw manure. This protects them from freezing and thawing and heaving out of the ground.

Fall planting should take place after the frost kills the leaves. Then trees and vines can be dug and planted or shipped. If not ready for setting, bury in the ground to keep the roots from drying. Remember the nature of the root of trees, vines and plants is to be in the ground. Trees can be kept buried in the ground until ready for planting. Dig a trench wide enough to set the bunch in, slanting tops nearly reaching the ground. Cut the lower string so the roots can be spread or let the soil get in contact with all the roots. The soil to cover the roots will make room for the next layer of trees. Putting straw or like material over the tops will keep the trees fresh and the roots from freezing. Be sure not to lose the tags with the names of the trees on them, as it is very vexing to have an orchard or berry patch and not know the names of the varieties. I plant thousands of trees, and it is very seldom that one fails to grow. The same with vines and berry plants. I plow the ground late in the fall, when it commences to freeze at night, thus killing the cutworms.—Jacob Faith.

Fall Care of Small Fruits.

Strawberries, if you intend to fruit the old patch again, require a good deal of work. As soon as possible after picking we mow the patch. We like to burn the straw and weeds, but we seldom find it

practicable to do so. It must be done before the mown plants make a new growth. The weeds must be dry and a strong wind blowing lengthwise of the patch, to take the fire over the ground as rapidly as possible. And as I said before, the conditions are seldom all right. So we almost always take the litter and haul it off the ground. Next we plow up the paths and a part of the rows, leaving only a narrow strip of plants. The patch is thoroughly harrowed and the rows hoed and thinned. After this the patch is cultivated weekly or after every rain.

In the fall, should they be too thick, that is, if too many new plants have been set, they are thinned once more and all weeds taken out of rows. About the first of December the patch is covered with marsh, hay, rye or oat straw, which ever we are able to get.

Raspberries and blackberries are hoed and cultivated the same as strawberries. The object should be to keep a dust mulch about them. Whenever it is possible to get it done they are well manured with coarse fresh stable manure in the fall.

Grapes are cultivated in a similar manner and trimmed any time after the leaves have fallen, and laid on the ground. Tender varieties are covered with earth. Concord usually require but little covering.

A large fork full of coarse manure at each vine is a great help if put on at beginning of winter.

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If you can use a part of your time this fall and winter doing good in your neighborhood we have a very special offer to make you. It is one that will pay you well in real money. Write today and be the lucky one in your neighborhood to get in on this paying plan. Address The Pay Plan Man, care of Green's Fruit Grower, Rochester, N. Y.

Here are Notes from the Intermountain Fruit Journal and Intensive Agriculturist.

In the middle west, the increase is estimated at 40 per cent. due to the large crop in the important states of Missouri and Kansas, Minnesota, Indiana, and Iowa are the only states in this section to fall below last years' level. In Minnesota, the crop appears but only 25 per cent. normal, and in Iowa the figures are only 30 per cent. However, these two states are not regarded as important apple producing centers.

The New England Group—This group shows nearly the same as last year, or within 3 to 5 per cent. as many, with conditions favorable and fruit showing up every day; the decrease in Massachusetts and the possible 5 per cent. decreases in Maine being practically offset, by gains in the other states. Quality good.

The Central Group—This large and very important group shows decreases in Pennsylvania, Ohio and the unimportant states of New Jersey and Wisconsin, which are more than offset by gains in the great state of New York and the important state of Michigan. As a whole the group will show an increase of 12 to 15 per cent. with winter fruit much in excess of last year. Quality is good and conditions are now favorable.

The Southern Group—This section as a whole, including the noncommercial states of Kentucky, Tennessee and Delaware, will show a decrease of 10 per cent. due to the substantial falling off in the northern part of the Shenandoah valley and the southern part of the Cumberland, covering northern Virginia and the eastern panhandle of West Virginia and western Maryland. Outside of cedar rust on Yorks in a part of this group, the size and quality is much better than last year. Taking the three commercial states of Virginia, West Virginia and Maryland together, the decrease in them is slightly more than 15 per cent.

Canada—While there is a decrease in Nova Scotia, of about 500,000 barrels, yet the crop there still exceeds 1,100,000 barrels, which is the second largest in its history and over three times that of 1910; and the decrease here is a little more than offset by the gain in Ontario alone, saying nothing about the increase in British Columbia, which is relatively unimportant. The increase for the Dominion as a whole is 5 to 10 per cent.

A Word About Putting Up Peaches.

Peaches to be delivered in best condition for preserving are picked before they have fully ripened.

To thoroughly ripen fruit, wrap in a blanket to exclude air and light and leave for about 24 hours or until in proper condition. The fruit in this way will ripen without shrinking.

To peel, drop the fruit in hot water for 30 seconds or less. The skin may then be easily removed.

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Four Regular Weekly Departments, Alone Worth the Subscription Price

Women's Cares, Comforts, Clothes and Cooking

Our departments for women appeal directly to the woman in the country. They include four regular features, all ably written: (1) Practical Talks by a country woman of experience on problems of the hired man and hired girl, training of children, pin-money, etc. (*The Country Gentlewoman*); (2) Foods and Cooking, country dishes, pleasing new recipes from East and West—preserving and canning; (3) The Rural Home—its furnishings and decorations; (4) Sewing—how to make clothes stylish yet practical—embroidery, laces and knitting ideas.

\$1106.85 From a One-Acre Garden

A net income of \$1106.85 in twelve months from a little one-acre home garden was the achievement of one man, who tells us how he did it. There is always definite and helpful information on gardening in our *Home-Acre Department*. THE COUNTRY GENTLEMAN will aid the man who is trying to get his living from a little land—or the man who raises a few delicacies—or the city man who has not yet given his whole time to farming—as well as the big commercial gardener.

How Are Crops and What Are They Worth?

What crop to grow? When to sell it? These questions determine profits on most farms. THE COUNTRY GENTLEMAN employs a national expert on crop reports to write a weekly department on *The Crops and the Markets*, giving the changes in prices and the market demands. Also there are special articles telling how to put each crop on the market in prime condition so as to get the maximum price. No farmer who reads this department regularly, and supplements it with a local newspaper, can be ignorant of when and how to market his crop to get the greatest returns.

What is Your Congressman Doing?

The Presidential campaign, the State campaigns, involve today many issues of direct personal importance to farmers. You want a way to follow easily and accurately what the politicians are doing. That is what the *Weekly Congressional Calendar* in THE COUNTRY GENTLEMAN is for. It does it successfully, always with an eye for the agricultural interests. By it you can check up the votes of your own representatives in congress and legislature on things that mean dollars and cents to you.

Here Are Five Important Special Series That Will Appear During These Four Months

A Master Farmer and His Fifty Farms

In the Genesee Valley, New York, one man owns some fifty farms—over 10,000 acres in all. They are rented—many of them have been for a century. The rental is \$2 to \$4 an acre, according to the crop. Much of this land fifteen years ago returned only seventy-five cents an acre—some of it, nothing at all. Now it is all on a paying basis. How this master farmer manages this enormous estate, and aids fifty tenants in making a profit, is told in one article of our series on successful farmers. It's the story, not of a fad, but of a money-maker. So with all this series. The articles deal with big and little farms in various parts of the country.

Wiped Out By Fire

In New York State alone there were 5800 farm fires last year. They caused a loss of \$1,500,000. Most of them could have been prevented. Lightning caused 1800—many of these were preventable. We shall print a series of articles on fire prevention and protection covering (1) What farm fire losses represent and how they threaten the average farmer; (2) How to guard against fire; (3) How to put it out if it starts—up-to-date home fire-fighting apparatus; (4) The best kinds of insurance on buildings, crops and livestock impartially compared; (5) Actual facts about farmers' mutual insurance companies that have worked. These articles will show you in a practical way how to strengthen your protection against the possible loss of your property or profits.

What Can Your Boy Earn?

Six graduates of different agricultural colleges went back to the farm, as thousands of others are doing. They farmed by the help of what they had been taught in college. Some did brilliantly from the first; others just held their own; all are now what you would call successful. They have consented to write what they did and how they did it. In particular, they will say just how their training panned out when actually put to test. Is your boy going to an agricultural college? Get a line on the possibilities that await him, the salary he may expect to earn, the capital he may need in future.

Good Marketing By Advertising

Six years ago a farm hand in a Western State rented some land and grew a crop of fine seed grain. Last year he sold over \$15,000 worth of pure-bred seed grains, and is known as one of the seed experts of the world. Judicious advertising did it.

A student in a leading agricultural college heard a lecture on advertising. He went home and prepared some small ads. for produce. In six weeks he sold for nearly \$1000 goods which might otherwise have brought less than \$400. The methods of these men and a dozen others will be told in our series on "Farm Advertising." It covers advertising of pure-bred livestock, seed grains, produce, dairy products and fruit. Several stockmen of national standing will contribute. All details explained.

What is Your Money Crop?

If your farm were big enough, and the soil, climate and market conditions varied enough for 30 crops, you would like to have 30 experts—one for each. But the cost would be too great. Most successful farming communities center attention upon a single crop adapted to the locality. To diversify or combine crops offers greater returns from year to year, but it is necessary to have one crop that you may promptly convert into cash to meet running expenses.

We are printing a series on "The Money Crop." The articles will be written by 30 experts—on wheat, corn, tobacco, cotton, hay, potatoes, pork, beef, milk, wool, and so forth. Each article will show the essentials in business management, soil, climate and capital, and the returns which may be expected. They will include personal experiences.

Beside these, we have frequent practical articles on poultry, livestock, the dairy, farm machinery, road building, the rural school, the church, the grange, farmers' clubs and other aspects of country community life; cooperative marketing; building and furnishing the house; a regular department on the scientific advance of agriculture and new inventions; wholesome fiction of country life, stories and verse; a letter-box and a strong editorial page that stands always for the interests of the farmer.

OFFER Sixty thousand more farmers than a year ago are already buying THE COUNTRY GENTLEMAN at 5 cents a copy, or \$1.50 a year, the regular price. If you knew THE COUNTRY GENTLEMAN as they do you would be glad to pay that amount and more for your subscription. You know our other publications, THE SATURDAY EVENING POST and THE LADIES' HOME JOURNAL. We want you to know THE COUNTRY GENTLEMAN. The Curtis Publishing Company never gives premiums, bonuses or clubbing offers. But it is good business for us to get THE COUNTRY GENTLEMAN into your hands. You will judge for yourself. In order to give you a fair chance to see with your own eyes that it is everything we claim, we will send it to your home until February 1, 1913, for 25 cents. This one-half reduction in price is solely a trial offer for new subscribers. It will never be repeated. Fill in and send the coupon opposite (or, if you wish to save the paper in which this is printed, write us a letter, giving clearly your name and address, enclosing 25 cents).

**THE CURTIS PUBLISHING COMPANY
PHILADELPHIA, PA.**

CUT OUT—MAIL TODAY

THE COUNTRY GENTLEMAN,
Independence Square, Philadelphia, Pa.

Enclosed please find 25 cents, stamps or coin (Canadian price 40 cents). Please send THE COUNTRY GENTLEMAN to the address below until February 1st, 1913, beginning with the next issue.

Name _____

Town _____

State _____

NEVER BEFORE!

Probably Never Again Such Wonderful Bargains
S-M-A-S-H Go Roofing, Wire, Lumber, Building Material Prices!!!

SPECIAL

This advertisement illustrates six of our leading complete House Designs.
 Our building proposition is the most wonderful ever presented. We furnish the material needed to construct any of the houses illustrated for price quoted. All material guaranteed brand new, exactly represented. Our guarantee noted elsewhere in this advertisement is so broad and binding, that you cannot possibly make a mistake when you deal with us. No money down—not one cent of cash in advance. We will ship you a complete carload of building material, or all the material needed to reproduce any of the designs shown in this advertisement, and you need not pay us a single penny of the money until the material reaches destination, and you have found it in accordance with our representations. Ask for our Special Building Terms. Our offer is the most wonderful ever published. Our Book of Plans contains 96 designs of modern homes, bungalows, barns and buildings; mailed free. Fill in coupon.



Design No. 117
 Six Rooms and Bath.
 A Modern Bungalow.
 Excellent Interior.
 Size 28 feet, 6 inches by 21 feet.



Design No. 55
 Six Rooms and Bath.
 All rooms convenient
 and roomy. Size 22
 feet by 31 feet.



Design No. 134-A
 Eight rooms and bath.
 Splendid porch; every
 convenience. Size 30
 feet by 30 feet.



Design No. 50
 Eight rooms and bath;
 very attractive exterior.
 Five closets. Airy
 balcony. Size 28 feet by 28 feet.



Design No. 131-A
 Eight rooms and bath.
 Ample closets; an exceptionally well designed house. 28x28. Large porch.



Design No. 53
 Seven Rooms, Bath.
 Large Living and
 Main Bedroom. Modern in every respect. Size 27x36 ft.

The Chicago House Wrecking Co., has been in existence 20 years and has offered remarkable bargains and sold millions of dollars worth of merchandise and supplies. Our prices have always been lower than anyone else has been able to quote, but for this great Fall and Winter sale we have literally "smashed" and "busted" prices—absolutely the lowest prices ever offered in the history of merchandise and building lines.

Our Company is known as the World's Bargain Center, and as the great "Price Wreckers", and if you want to see exactly how we earned these titles, write today for some of our remarkable "Price Wrecking" literature. Fill in the coupon below and we will send you any of these books without any obligation of any kind.

Don't you buy a single thing until you have written for our wonderfully low prices—you will be surprised at our prices on every single article needed to build, construct or improve; also for articles in the household and furnishing goods line. Our stock includes practically everything "under the sun". Even if you have no intention of buying now, get in line with us just the same. Send for our literature and be prepared to take advantage of money-saving opportunities that will probably never again occur.

We will sell you a carload of building material without one cent deposit. We know full well that our goods will give satisfaction, and if we had the least doubt of the quality, we would not dare to make this remarkable offer.

YOU CAN BUY A CARLOAD OF BUILDING MATERIAL WITHOUT A CENT IN ADVANCE

LUMBER

Prices smashed. Yes, absolutely busted to pieces. Notwithstanding the fact that lumber prices are higher than ever before in the lumber and building material industries, our quotations are the same as previously offered by us. Send your building material list, and we will name you a freight prepaid estimate which will mean a decided saving to you. Every stick of lumber is brand new, quality guaranteed, exactly according to our representations. You will find it better than the same grades handled by anyone in the United States. We can fill your entire order for every item used in building or improving at one time, from our headquarters in Chicago. No one dare duplicate this statement.

Our proposition is open-and-above-board. Do not be confused by anyone's prices unless they can tell you the same as we do, that the entire order is shipped from Chicago in one carload.

Nothing better manufactured. Every article guaranteed absolutely brand new and in accordance with our descriptions and representations. For the Fall of 1912, we are offering some remarkable bargains, for instance:

Lot SM-33—4-panel painted Door, 2-ft. 6-in. by 6-ft. 6-in. at 90c. Screen Doors, at 85c each. Lot SM-22—101 doors, 2-ft. 6-in. by 6-ft. 6-in. 15-in. thick, 2 panels below, 4 light's above, similar to our "Rockbottom" glazed, \$1.85. Lot SM-23—188 Doors, same as above, except 2-ft. 8-in. by 6-ft. 8-in. \$1.85. Lot SM-149—1,200 Solid Turned Porch Columns, 5-in. diameter, 8-ft. long, clear fir, each 90c. Lot SM-150—200 Porch Columns, same as above, except 6-in. diameter, 10-ft. long, each \$1.50. Lot SM-112—177 Windows, 42-in. by 36-in., 16-in., 4 light check rail, glazed, S. S. A. glass \$1.20. Lot SM-122—190 Windows, 24x36, 16-in., 2 light check rail, glazed, S. S. A. glass \$1.20. Lot SM-123—190 Doors, 2-ft. 6-in. by 6-ft. 6-in., 15-in. thick, 3 cross panels below, 1 cross panel above glass, D. S. A. similar to our "Poppy" painted \$1.80. Lot SM-132—91 Front Doors, 2-8x8-8, 15-in. thick, 3 panels below glass, D. S. A. similar to our "Tulip", price \$2.00. Lot SM-144—72 Front Doors, 2-8x8-8, 15-in. thick, 1 panel below glass, made with 12-in. top rail and extra heavy bottom rails, glazed, D. S. A. No. 1 White Pine \$3.50. Our Building Material Catalog will save you money on all purchases. No one can compete with us. Write for your free copy today.

MILLWORK

Combination Tool, \$2.85
 Anvil, vise, pipe cutter, drill and bar die combined in one tool. Easily adjusted; vice jaws opening in width of jaws 15 in.; top of anvil case hardened; jaws of vice faced with case hardened steel. Lot 4-AD-101, price \$2.85. Just the tool you've been looking for. This price means a material saving if you buy now; only 250 in stock.

Galvan'd Steel Tank, \$2.50

Capacity 1 1/4 bbls. heavy, 20 gauge galvanized steel, round, cut tank, strongly braced and guaranteed. Only 100 in stock. Lot 4-AD-1-100, \$2.50 each; others from 2 1/2 to 60 bbls., at correspondingly low prices. Washington First stock of these tanks have been galvanized hoops and legs, 4 ft. diam. by 2 ft. high, 108 gal., \$6.57. Lot 4-AD-102. Others up to 10,000 gallons.

Handy Bolt Assortment 45c

Consists of 17 lengths and sizes, 3/8 to 6-in. long, 1/4, 5/16 and 3/8-in. diameter, including wing nuts, bolts, etc. Well cut threads. A fine, handy assortment for every farmer, mechanic or blacksmith. Lot 4-AD-103, price 45c.

750-Piece Assortment, 50c

Greatest bargain ever offered—will pay for itself many times over in one year. Contains carriage, machine, tire and plow bolts; flat and round headed screws; flat, round bottom and cone headed steel rivets; flat and round headed brass rivets and washers—750 pieces. Lot 4-AD-104, price 50c.

Best Quality Premier, Michaelson Ready Mixed House Paint, Per Gallon \$1.05

Our paint department is under the personal supervision of Mr. V. Michaelson, for 20 years the foremost paint man in America. His picture has appeared on over 8,000,000 cans, and his name is known from ocean to ocean. Paint of quality is his specialty. Every gallon has our strongest guarantee. Our Ready Mixed Barn Paint at 67c per gallon will outlast any similar paint produced. If you want quick results, write us or write to Mr. Michaelson (you prefer). Finest, most valuable paint book ever published sent FREE. Send coupon.

PLUMBING

\$26.50 Buys This Complete Bath Room Outfit
 Here is a saving to you of 50%; a high grade, perfect white enameled bath tub, 5 feet long, all nickel plated trimmings, including double bath cock for hot and cold water; lavatory of latest design, with 10 inch one piece back, all white enameled, big size, nickel plated basin cocks, nickel plated trimmings. Closet in latest, most sanitary Syphon acting, vitreous enamel bowl; hand soap and cover, nickel plated hinges; fitted with hardwood, copper lined, low down tank, latest style, easy working, noiseless working outfit. Easily worth \$50, but for this great Fall Sale we have literally cut the price in two. When you order this outfit, mention Lot 5-AD-100.

\$13 Buys Complete Bath Tub

White enameled, cast iron, one piece, heavy roll rim bath tub 5 feet long; fitted with latest style, nickel plated trimmings, including double bath cock for hot and cold water, nickel plated connected waste and overflow, and nickel plated supply pipes. In ordering, mention Lot 5-AD-101.

\$6 Buys Complete Wash Stand

Finest enameled, cast iron, one piece lavatory built; graceful in shape; can be furnished either for straight wall or corner of room; trimmed with best nickel plated fittings. Lot 5-AD-102, price \$6.00. 40 other styles at proportionately low prices.

\$8.50 for a High Grade, Sanitary, Complete Closet

We have 200 of these outfits. Closet bowl latest sanitary construction, syphon acting, vitreous bowl, fitted complete with hardwood seat and cover, with nickel plated hinges; latest style, copper lined tank; outfit is Lot 5-AD-103. Write for prices on other styles, also our Plumbing and Heating Catalog.

Enameled Sink at 75c

One piece, seamless Kitchen Sink, blue enameled inside and outside, size 18x20 or 18x24. Price includes strainer and collar to make connections. Lot 5-AD-104, price 75c. Also, a fine, full length, one piece Kitchen Sink; back, drainboard and end piece all cast in one piece. Fitted with nickel plated faucets for hot and cold water and trap to floor. Finest outfit manufactured. Write today for Free Plumbing Catalog. Fill in coupon below.

\$42 Buys Water Supply Outfits

This wonderful offer means that any man can obtain city comforts at a trifling cost. So simple that any man with ordinary intelligence can easily install it. An up-to-date six inch pressure outfit, every part guaranteed. Can be furnished with either vertical or horizontal tank. At this price we include our special Chicago Air Pressure Tank, capacity 140 gallons, with our special combined air and water pump, double acting, with brass lined cylinder. Also includes all necessary gauges, valves and connecting fittings, together with necessary pipe cut and threaded to connect pump to tank. Our plumbing experts will give you information covering any phase of water works or plumbing quotations. We have specially prepared literature which we mail you without any obligation of any kind. Even if you have no immediate intention of purchasing, write us at once and let us make you a proposition.

Heating Plants

For the great Fall Sale we are offering a warm air heating plant large enough for the ordinary 6-room house, with all necessary blue print plans and complete instructions for installation of same for \$75. Send us your sketch and give us information as to the construction of your building and we will make you a quotation on any kind of heating plants, steam, hot water or warm air. Every heating plant sold under a broad and binding guarantee of 365 days free trial. Write for a copy of our Heating Catalog containing information of priceless value.

Galvanized Roofing

Fire, Water and Lightning Proof

We bought 20,000 squares of this corrugated iron roofing which we offer at this remarkable low price. It is new, perfect and first-class in every respect, but light weight. The sheets are 22x24x14 inches corrugated. Our price of \$1.25 per square is not freight prepaid, but \$2.00, R. O. R. W. Chicago. When ordering this item, specify Lot No. AD-700. This is not galvanized, but black steel roofing. Write us today for our special FREIGHT PREPAID PRICES on new, galvanized roofing. We are offering prices lower than anything ever offered in the roofing business. Galvanized roofing is \$2.50 per square and up. Write for free samples and mail coupon below for a copy of our Roofing Book. It shows you how to save money on all your Roofing, Siding or Ceiling purchases.

75c Per 108 Sq. Ft. Buys Best Rubber Surfaced "Ajax" Roofing

Here, again, we show the lowest price ever known for roofing material. This smooth surfaced roofing we are offering is our only "Ajax" brand, and the price includes necessary cement and nails to lay it, and at this remarkably low price.

In full to any point east of Kansas and Nebraska and north of Ohio river. We also furnish 2-ply at 90c, 3-ply at \$1.65. This "Ajax" roofing is guaranteed to wear as long and give as good service as any Ready Rubber Surfaced Roofing on the market. It is put up in rolls of 108 square ft., and contains 3 or 4 pieces to the roll. We have other grades of Ready Roofing which we offer at prices easily 30 per cent below regular quotations. Samples free. Get our Free Roofing Book before buying roofing of any kind.

Barb Wire, Less 2c Rod

New, galvanized, heavy weight Barb Wire, put up on reels about 100 lbs. to the reel. Lot 2-AD-25, per 100 lbs. \$1.95. Galvanized Barb Wire, light weight, first grade, best made, put up on reels, exactly 80 rods to reel, 2-point barbs. Lot 2-AD-26, per 100 lbs. \$1.40. Never before have such low prices been offered on Barb Wire. Now is the time to place your order while our stock remains.

Smooth Galvanized Wire

Per 100 Pounds \$1.25
 Suitable for fences, stay wires, grape vines or for any ordinary purpose where wire is used. This galvanized wire is 14-in. regular in length—from 50 to 250 ft. \$1.25 is our price for No. 6 gauge. Other sizes in proportion.

15c Per Rod Hog Fencing

A high grade, perfect fence, No. 9, 11 and 12 wires, perfectly adapted for hogs and general farm purposes. 26-in. high, square mesh. Lot 2-AD-31, per rod 15c. Other heights in proportion. Full stock poultry fencing, Gate and Lawn Fence and everything in the wire line. Galvanized Fence Staples, \$2.00 per keg of 100 pounds. Wire for reinforcing concrete, crimped, just the thing for making fences or other general purposes. All gauges from No. 14, cut to length in bundles of 100 pounds. Lot 2-AD-32, price per 100 lbs. \$2.25.

Wire Nails, Per Keg, \$1.50

10,000 kegs, put up in 100 lbs. to keg, mixed, all kinds, regular, such as made by factories. Lot 2-AD-33, per keg, \$1.50. 1,000 kegs of 10 penny weight, regular new wire nails, 100 lbs. to keg, per keg, \$2.00, while they last.

1 1/2 H. P. Gasoline Engine

\$24.75 The lightest, strongest and most compact Gasoline Engine ever produced. Thirty days' free trial. It is all 4-cycle, self-contained, horizontal, hopper cooled; on heavy wood skids, with battery box; shipped complete; weight 250 pounds. Has automatic governor, easy to start. Send for special Gasoline Engine Catalog.

Iron Pipe Rejuvenated Pipe

complete with threads and couplings, suitable for gas, oil, water and any other liquid. 1 1/2-in. pipe, 4-in. pipe, 6-in. pipe, 8-in. pipe, 10-in. pipe, 12-in. pipe, 14-in. pipe, 16-in. pipe, 18-in. pipe, 20-in. pipe, 24-in. pipe, 30-in. pipe, 36-in. pipe, 42-in. pipe, 48-in. pipe, 60-in. pipe, 72-in. pipe, 84-in. pipe, 96-in. pipe, 108-in. pipe, 120-in. pipe, 144-in. pipe, 168-in. pipe, 192-in. pipe, 216-in. pipe, 240-in. pipe, 264-in. pipe, 288-in. pipe, 312-in. pipe, 336-in. pipe, 360-in. pipe, 384-in. pipe, 408-in. pipe, 432-in. pipe, 456-in. pipe, 480-in. pipe, 504-in. pipe, 528-in. pipe, 552-in. pipe, 576-in. pipe, 600-in. pipe, 624-in. pipe, 648-in. pipe, 672-in. pipe, 696-in. pipe, 720-in. pipe, 744-in. pipe, 768-in. pipe, 792-in. pipe, 816-in. pipe, 840-in. pipe, 864-in. pipe, 888-in. pipe, 912-in. pipe, 936-in. pipe, 960-in. pipe, 984-in. pipe, 1008-in. pipe, 1032-in. pipe, 1056-in. pipe, 1080-in. pipe, 1104-in. pipe, 1128-in. pipe, 1152-in. pipe, 1176-in. pipe, 1200-in. pipe, 1224-in. pipe, 1248-in. pipe, 1272-in. pipe, 1296-in. pipe, 1320-in. pipe, 1344-in. pipe, 1368-in. pipe, 1392-in. pipe, 1416-in. pipe, 1440-in. pipe, 1464-in. pipe, 1488-in. pipe, 1512-in. pipe, 1536-in. pipe, 1560-in. pipe, 1584-in. pipe, 1608-in. pipe, 1632-in. pipe, 1656-in. pipe, 1680-in. pipe, 1704-in. pipe, 1728-in. pipe, 1752-in. pipe, 1776-in. pipe, 1800-in. pipe, 1824-in. pipe, 1848-in. pipe, 1872-in. pipe, 1896-in. pipe, 1920-in. pipe, 1944-in. pipe, 1968-in. pipe, 1992-in. pipe, 2016-in. pipe, 2040-in. pipe, 2064-in. pipe, 2088-in. pipe, 2112-in. pipe, 2136-in. pipe, 2160-in. pipe, 2184-in. pipe, 2208-in. pipe, 2232-in. pipe, 2256-in. pipe, 2280-in. pipe, 2304-in. pipe, 2328-in. pipe, 2352-in. pipe, 2376-in. pipe, 2400-in. pipe, 2424-in. pipe, 2448-in. pipe, 2472-in. pipe, 2496-in. pipe, 2520-in. pipe, 2544-in. pipe, 2568-in. pipe, 2592-in. pipe, 2616-in. pipe, 2640-in. pipe, 2664-in. pipe, 2688-in. pipe, 2712-in. pipe, 2736-in. pipe, 2760-in. pipe, 2784-in. pipe, 2808-in. pipe, 2832-in. pipe, 2856-in. pipe, 2880-in. pipe, 2904-in. pipe, 2928-in. pipe, 2952-in. pipe, 2976-in. pipe, 3000-in. pipe, 3024-in. pipe, 3048-in. pipe, 3072-in. pipe, 3096-in. pipe, 3120-in. pipe, 3144-in. pipe, 3168-in. pipe, 3192-in. pipe, 3216-in. pipe, 3240-in. pipe, 3264-in. pipe, 3288-in. pipe, 3312-in. pipe, 3336-in. pipe, 3360-in. pipe, 3384-in. pipe, 3408-in. pipe, 3432-in. pipe, 3456-in. pipe, 3480-in. pipe, 3504-in. pipe, 3528-in. pipe, 3552-in. pipe, 3576-in. pipe, 3600-in. pipe, 3624-in. pipe, 3648-in. pipe, 3672-in. pipe, 3696-in. pipe, 3720-in. pipe, 3744-in. pipe, 3768-in. pipe, 3792-in. pipe, 3816-in. pipe, 3840-in. pipe, 3864-in. pipe, 3888-in. pipe, 3912-in. pipe, 3936-in. pipe, 3960-in. pipe, 3984-in. pipe, 4008-in. pipe, 4032-in. pipe, 4056-in. pipe, 4080-in. pipe, 4104-in. pipe, 4128-in. pipe, 4152-in. pipe, 4176-in. pipe, 4200-in. pipe, 4224-in. pipe, 4248-in. pipe, 4272-in. pipe, 4296-in. pipe, 4320-in. pipe, 4344-in. pipe, 4368-in. pipe, 4392-in. pipe, 4416-in. pipe, 4440-in. pipe, 4464-in. pipe, 4488-in. pipe, 4512-in. pipe, 4536-in. pipe, 4560-in. pipe, 4584-in. pipe, 4608-in. pipe, 4632-in. pipe, 4656-in. pipe, 4680-in. pipe, 4704-in. pipe, 4728-in. pipe, 4752-in. pipe, 4776-in. pipe, 4800-in. pipe, 4824-in. pipe, 4848-in. pipe, 4872-in. pipe, 4896-in. pipe, 4920-in. pipe, 4944-in. pipe, 4968-in. pipe, 4992-in. pipe, 5016-in. pipe, 5040-in. pipe, 5064-in. pipe, 5088-in. pipe, 5112-in. pipe, 5136-in. pipe, 5160-in. pipe, 5184-in. pipe, 5208-in. pipe, 5232-in. pipe, 5256-in. pipe, 5280-in. pipe, 5304-in. pipe, 5328-in. pipe, 5352-in. pipe, 5376-in. pipe, 5400-in. pipe, 5424-in. pipe, 5448-in. pipe, 5472-in. pipe, 5496-in. pipe, 5520-in. pipe, 5544-in. pipe, 5568-in. pipe, 5592-in. pipe, 5616-in. pipe, 5640-in. pipe, 5664-in. pipe, 5688-in. pipe, 5712-in. pipe, 5736-in. pipe, 5760-in. pipe, 5784-in. pipe, 5808-in. pipe, 5832-in. pipe, 5856-in. pipe, 5880-in. pipe, 5904-in. pipe, 5928-in. pipe, 5952-in. pipe, 5976-in. pipe, 6000-in. pipe, 6024-in. pipe, 6048-in. pipe, 6072-in. pipe, 6096-in. pipe, 6120-in. pipe, 6144-in. pipe, 6168-in. pipe, 6192-in. pipe, 6216-in. pipe, 6240-in. pipe, 6264-in. pipe, 6288-in. pipe, 6312-in. pipe, 6336-in. pipe, 6360-in. pipe, 6384-in. pipe, 6408-in. pipe, 6432-in. pipe, 6456-in. pipe, 6480-in. pipe, 6504-in. pipe, 6528-in. pipe, 6552-in. pipe, 6576-in. pipe, 6600-in. pipe, 6624-in. pipe, 6648-in. pipe, 6672-in. pipe, 6696-in. pipe, 6720-in. pipe, 6744-in. pipe, 6768-in. pipe, 6792-in. pipe, 6816-in. pipe, 6840-in. pipe, 6864-in. pipe, 6888-in. pipe, 6912-in. pipe, 6936-in. pipe, 6960-in. pipe, 6984-in. pipe, 7008-in. pipe, 7032-in. pipe, 7056-in. pipe, 7080-in. pipe, 7104-in. pipe, 7128-in. pipe, 7152-in. pipe, 7176-in. pipe, 7200-in. pipe, 7224-in. pipe, 7248-in. pipe, 7272-in. pipe, 7296-in. pipe, 7320-in. pipe, 7344-in. pipe, 7368-in. pipe, 7392-in. pipe, 7416-in. pipe, 7440-in. pipe, 7464-in. pipe, 7488-in. pipe, 7512-in. pipe, 7536-in. pipe, 7560-in. pipe, 7584-in. 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